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Abler, Joseph, to Aro Corporation, The. Fluidic logic memory element. 3,509,897, 5-5-70, Cl. 137-81.5

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Ablondi, Frank Buonfiglio; and Cooper, Murray Sam, to American Cyanamid Company. Toxoid compositions. 3,522,347, 7-28-70, Cl. 424-92.

Ablteta Pak: *See—*
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Aboytes, Peter, to Huber, J. M., Corporation. Sulfonated carbon black. 3,528,840, 9-15-70, Cl. 106-307.

Abplanalp, Robert Henry. Dispenser system for simultaneous dispensing of separately stored fluids. 3,490,651, 1-20-70, Cl. 222-94.

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Abraham, Edward D.; and Ellms, Robert W., to Sherwin-Williams Company, The. Foundry molding machine with sand valve seal and diaphragm blow valve means. 3,540,520, 11-17-70, Cl. 164-201.

Abraham, Garnett. Two way draw curtain apparatus. 3,528,477, 9-15-70, Cl. 160-84.

Abraham, Stanley Charles; and Moeck, Edward Otto, to Atomic Energy of Canada Limited. Two-phase homogenizer. 3,531,050, 9-29-70, Cl. 239-427.3

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Abrahamsen, Per R.; and Meisingset, Kaare Ragnar, to International Standard Electric Corporation. Ciphering unit. 3,522,374, 7-28-70, Cl. 178-22.

Abrahamsen, Thomas C., to RCA Corporation. Multiple font keyboard. 3,517,792, 6-30-70, Cl. 197-98.

Abrahamson Stephen; Denson, Judson S.; Clark, Alfred P.; Taback, Leonard; and Ronzoni, Pullio, said Clark said Taback and said Ronzoni assors to Aerojet-General Corporation. Anesthesiological training simulator. 3,520,071, 7-14-70, Cl. 35-17.

Abrahamsson, Thore Johannes, to AB Teem-Incorporated. Muffler with eccentric passage through baffle bodies. 3,545,566, 12-8-70, Cl. 181-50.

Abramitis, Walter W., to Armour Industrial Chemical Company, mesne. Gilsonite salts of herbicidal acid and plant hormone type acids. 3,488,180, 1-6-70, Cl. 71-88.

Abramitis, Walter W.; and Reck, Richard A., to Armour Industrial Chemical Company, mesne. Plant growth control. 3,506,433, 4-14-70, Cl. 71-78.

Abramo, John W. Brassiere. 3,528,431, 9-15-70, Cl. 128-484.

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Abramowitz, Herbert. Earhole piercing and treating apparatus. 3,500,829, 3-17-70, Cl. 128-215.

Abramowitz, William L. Means and method for internally detecting the presence of an intrauterine contraceptive device. 3,528,402, 9-15-70, Cl. 128-2.

Abrams, Albert; and Lawson, Jimmie B., to Shell Oil Company. Polymer-preceded chemical flood. 3,500,921, 3-17-70, Cl. 166-273.

Abrams, Andrew. Door chime music box. 3,545,328, 12-8-70, Cl. 84-94.

Abrams, Irving M.; and Parks, Chester S., to Diamond Shamrock Corporation. Ion-exchange process. 3,493,498, 2-3-70, Cl. 210-32.

Abrams, Louis. Pre-formed cake icing and method of making same. 3,503,345, 3-31-70, Cl. 107-54.

Abrams, Louis. Grinding wheel dresser and method. 3,508,533, 4-28-70, Cl. 125-11.

Abrams, William C. Apparatus for transferring floor to ceiling markings. 3,505,739, 4-14-70, Cl. 33-46.

Abramson, Andrew E.; and Kitchar, Andrew F., to Research Instruments & Controls, Inc., mesne. Apparatus for strip trimming preparatory to lap joinder. 3,489,405, 1-13-70, Cl. 269--021

Abramson, Franz W. Radial-driven, multistage jet pump. 3,531,214, 9-29-70, Cl. 415-68.

Abramson, Harvey J., to American Technical Machinery Corporation. Packaging machine and method. 3,490,195, 1-20-70, Cl. 53-29.

Abramson, Norman; and Lutzker, Lawrence, to American Computer Communications Co., Inc. Adaptively coded data communications system. 3,506,961, 4-14-70, Cl. 340-146.1

Abramson, Paul, to International Business Machines Corporation. Up to M out of N' logic circuit. 3,541,348, 11-17-70, Cl. 307-211.

Abramson, Paul; and French, Walter K., to International Business Machines Corporation. Signal detector circuit. 3,495,097, 2-10-70, Cl. 307-235.

Abramson, Paul; and Juliusburger, Hans Y., to International Business Machines Corporation. Code converter. 3,541,547, 11-17-70, Cl. 340-347.

Abromaitis, Andre T., to McGraw-Edison Company. Fail-safe system. 3,525,907, 8-25-70, Cl. 317-124.

Abromavage, John C., to Arcoa, Incorporated. Combination crimper and tester. 3,527,075, 9-8-70, Cl. 72-31.

Abromavage, John C.; and Reichardt, Harry J., to Arcoa Incorporated. Adjustable mirror. 3,501,123, 3-17-70, Cl. 248-487.

Abromavage, John C.; and Ryden, James W., to Arcoa, Incorporated. Rear view mirror adjustable support. 3,514,067, 5-26-70, Cl. 248-484.

Abromavage, John C.; and Shattles, Henry S., to Arcoa, Incorporated. Ramp assembly. 3,511,393, 5-12-70, Cl. 214-85.

Abruzzo, Joseph, to United States of America, Navy. Digital overflow threshold for sonar. 3,505,637, 4-7-70, Cl. 340-3.

Abruzzo, Joseph; and Price, William L., to Westinghouse Electric Corporation. Linear FM signal generator. 3,530,404, 9-22-70, Cl. 331-178.

Absler, Howard K.; and Narel, Leonard M., to Uarco Incorporated. Adjustable outfeed assembly for stationery burster. 3,493,156, 2-3-70, Cl. 225-100.

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Abson, James William; Clark, Eric Innes; and Gray, Ian Malcolm, to Simon-Carves Limited. Apparatus for effluent treatment. 3,543,936, 12-1-70, Cl. 210-221.

Abson, James W.; Landau, Manfred; Clark, Eric I.; and Molyneux, Alan, to Simon-Carves Limited. Catalysis. 3,549,559, 12-22-70, Cl. 252-459.

Abt, Edgar J., to United States of America, Navy. Air-arming pyro delay fuze. 3,545,382, 12-8-70, Cl. 102-79.

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Accountius, Oliver E., to North American Rockwell Corporation. Reinforced carbonaseous bodies. 3,498,929, 3-3-70, Cl. 252-503.

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Achermann, Werner; and Achermann, Franz. Transportation and storage safeguard for highly stressed articles made of corrugated or plain cardboard, plastic foam and the like. 3,495,756, 2-17-70, Cl. 229-14.

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Acker, Ellsworth George, to Grace, W. R., & Co. Process for increasing pore volume of intermediate density silica gel. 3,526,603, 9-1-70, Cl. 252-451.

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Ackermann, Hans; Bossard, Werner; Voltz, Jacques; and Wegmuller, Hans, to Geigy, J. R., A.G. 5-Arylazo-pyrimidine monoazo dyestuffs. 3,531,457, 9-29-70, Cl. 260-154.

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Ackermann, Karl, to Bosch, Robert, Elektronik Gesellschaft mit beschraenkter Haftung. Control system for terminating the discharge of a flash lamp. 3,541,387, 11-17-70, Cl. 315-151.

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Adaev, Evgeny Ivanovich; Blinov, Alexandr Vasilievich; Kamarian, Georgy Mikirtychevich; Novoselov, Viktor Alexandrovich; Suchkov, Vladimir Nikolaevich; and Yakimenko, Leonid Markovich. Electrolytic cell. 3,507,768, 4-21-70, Cl. 204-243.

Adaev, Evgeny Ivanovich; Blinov, Alexandr Vasilievich; Kamarian, Georgy Mikirtychevich; Novoselov, Viktor Alexandrovich; Suchkov, Vladimir Nikolaevich; and Yakimenko, Leonid Markovich. Device for the installation of the cathode dome with diaphragm into the electrolytic cell. 3,544,443, 12-1-70, Cl. 204-279.

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Adahan, Carmeli. Drop-park transmission ratio selector lever. 3,488,818, 1-13-70, Cl. 27-2.

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Adam, Herbert A. Hydro foil. 3,545,399, 12-8-70, Cl. 114-66.5

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Adam, Stephen F.; Anderson, Richard W.; and Veteran, David R., to Hewlett-Packard Company. Parallel-plate perpendicular strip center conductor tem-mode transmission line apparatus. 3,500,263, 3-10-70, Cl. 333-84.

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Adams, Gerald F., to Chariot Manufacturing Company, d/b/a Adams Brothers Plastic. Plastic support bracket for concrete reinforcing rods. 3,530,634, 9-29-70, Cl. 52-687.

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Adams, Roman A.; and Jenkinson, George H., to Dick, A. B., Company, The. Electrostatic recorder employing signal switching using a conducting fluid. 3,489,850, 1-13-70, Cl. 178-6.6

Adams, Samuel F.; Guerin, Edmond H., Jr.; and Birch, Edin L., to American Paper Tube Company. Yarn-relief bobbin-spindle units. 3,518,823, 7-7-70, Cl. 57-131.

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Adams, Thomas, to United States of America, Army, and/or Federal Aviation Agency. Calibration method and apparatus for a physiologic evaporative water loss measurement system. 3,520,194, 7-14-70, Cl. 73-1.

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Adcock, Dennis Ronald, to Airoil Burner Company (GB) Limited. Burner assembly for fluid fuels. 3,514,245, 5-26-70, Cl. 431-348.

Adcock, Edmund Philip; and Stanley, Joan Ann. Method for sealing a membrance to the mouth of a container utilizing induced radio frequency current. 3,549,440, 12-22-70, Cl. 156-69.

Adcock, Gerald L. Bit assembly for bottom hold impact drilling tool. 3,537,539, 11-3-70, Cl. 175-413.

Adcox, L. D., 1/2 to Milne, John B. Master container filling machine. 3,513,624, 5-26-70, Cl. 53-62.

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Addamiano, Arrigo, to General Electric Company. Method of epitaxial growth of alpha silicon carbide by pyrolytic decomposition of a mixture of silane, propane and hydrogen at atmospheric pressure. 3,520,740, 7-14-70, Cl. 148-175.

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Addis, Kenneth J.; Pitts, Bobby L.; and Wells, Thomas A., to Deering Milliken Research Corporation. Apparatus for taking a sample from a moving web of material. 3,495,488, 2-17-70, Cl. 83-151.

Addis, William L., to Owens-Illinois, Inc. Shear stacker. 3,533,319, 10-13-70, Cl. 83-27.

Addison, George E.; and Mitsche, Roy T., to Universal Oil Products Company. Process for producing LPG and a high octane reformate. 3,511,773, 5-12-70, Cl. 208-139.

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Adelaar, Hans Helmut; and De Wit, Frans Corneel Leo, to International Standard Electric Corporation. Crosspoint operating circuit. 3,536,847, 10-27-70, Cl. 179-18.

Adelaar, Hans Helmut; Van Goethem, Jan; and Van Brussel, Marcel Arthur, to International Standard Electric Corporation. Fault detecting and correcting circuitry for crosspoint networks. 3,532,976, 10-6-70, Cl. 324-73.

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Adell, Robert. Wheelless tape cartridge. 3,516,616, 6-23-70, Cl. 242-55.19

Adell, Robert, to Adell International, Inc. Plastic bottle-attachment means. 3,533,526, 10-13-70, Cl. 215-56.

Adelman, Albert H., to Battelle Development Corporation, The. Photosensitive crystalline polyacetylenic sensitized with a π acid. 3,501,308, 3-17-70, Cl. 96-88.

Adelman, Philip. Garden fence and wall. 3,537,687, 11-3-70, Cl. 256-19.

Adelsohn, Louis. Fastenable three-dimensional puzzle pieces. 3,523,384, 8-11-70, Cl. 46-25.

Adelson, Alexander Michael; and Swartz, Jerome, to Hall-Barkan Instruments, Inc. Two-wire solid state direct touch responsive semiconductor switch circuit. 3,493,791, 2-3-70, Cl. 307-252.

Adelson, Alexander Michael; and Swartz, Jerome, to Hall-Barkan Instruments, Inc., mesne. Touch, activated DC switch and programmer array. 3,530,310, 9-22-70, Cl. 307-252.

Adelson, Alexander Michael; and Swartz, Jerome, to Hall-Barkan Instruments, Inc. Touch activated AC, full wave, two-wire switches. 3,549,909, 12-22-70, Cl. 307-252.

Adelson, Alexander M.; and Swartz, Jerome, to Hall-Barkan Instruments, Inc. Touch responsive momentary switch circuit. 3,530,312, 9-22-70, Cl. 307-252.

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Adica, Osamu; Naito, Kenji; Ogino, Katsuhiko; and Kuroda, Hiroyuki, to Takeda Chemical Industries, Ltd. Method for the purification of organic polyisocyanates by fractional distillation in presence of an inert gas or superheated vapor of an organic solvent. 3,549,504, 12-22-70, Cl. 203-49.

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Adkins, David E.; and Legue, Ronald L., to American Gas Association, Inc. Angularly adjustable auger head. 3,526,285, 9-1-70, Cl. 175-73.

Adkisson, George W., Jr. Shoe holding device. 3,534,426, 10-20-70, Cl. 15-267.

Adkisson, John L.; and Manildi, Albert B., to International Business Machines Corporation. Frequency modulated signal switching with frequency divided output. 3,522,372, 7-28-70, Cl. 178-6.

Adlaf, William J., to Esterline Corporation. Apparatus for straightening stock material. 3,548,629, 12-22-70, Cl. 72-416.

Adler, Alan J., to Itek Corporation. Mask alignment system using radial patterns and flying spot scanning. 3,497,705, 2-24-70, Cl. 250-237.

Adler, Alan John, to Itek Corporation. Microphone assembly for use in a stethoscope. 3,525,810, 8-25-70, Cl. 179-1.

Adler, Arthur, to Pfizer, Chas., & Co., Inc. Particulate powder of iron with copper contained therein. 3,489,548, 1-13-70, Cl. 75-0.5

Adler, Arthur. Homogeneous metal-containing solid mixtures. 3,527,595, 9-8-70, Cl. 75-0.5

Adler, Benjamin H., to Republic Corporation. Suspensory system for demountable letters and method of forming three-dimensional letters. 3,531,884, 10-6-70, Cl. 40-140.

Adler, Benjamin H., to Tanger Industries, mesne. Suspensory element forming a support for demountable letters and the like. 3,532,317, 10-6-70, Cl. 248-223.

Adler, Estelle. Apparatus for the therapeutic treatment of the skin. 3,516,411, 6-23-70, Cl. 128-404.

Adler, Felix M. Apparatus for the construction of elevated ways. 3,527,553, 9-8-70, Cl. 94-22.

Adler, Franklin P., to Pullman Incorporated. Railroad car construction. 3,504,636, 4-7-70, Cl. 105-366.

Adler, Franklin P. Slack adjuster for railway car brakes. 3,517,786, 6-30-70, Cl. 188-200.

Adler, Franklin P., to Pullman Incorporated. Lightweight hopper gate. 3,530,803, 9-29-70, Cl. 105-282.

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Adler, Meryle D. W.; Andryslak, Carl D.; and Pauls, Lawrence A., to Corning Glass Works. Pneumatic feeder system for low viscosity molten glass. 3,533,770, 10-13-70, Cl. 65-131.

Adler, Michael S., to Massachusetts Institute of Technology. Transistorized nuclear magnetic resonance gaussmeter. 3,548,298, 12-15-70, Cl. 324-0.5

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Adler, Robert, to Zenith Radio Corporation. Cylindrical lens compensation of wide-aperture Bragg diffraction scanning cell. 3,516,729, 6-23-70, Cl. 350-161.

Adler, Robert, to Zenith Radio Corporation. Monochromatic light beam deflection apparatus having two trains of frequency scanned acoustic waves for effecting Bragg diffraction. 3,531,184, 9-29-70, Cl. 350-161.

Adler, Robert, to Zenith Radio Corporation. Video playback systems. 3,544,718, 12-1-70, Cl. 178-69.5

Adler, Robert, to Zenith Radio Corporation. Over-voltage detecting and protection apparatus. 3,544,750, 12-1-70, Cl. 200-181.

Adler, Robert, to Zenith Radio Corporation. Acoustic surface wave filter devices. 3,550,045, 12-22-70, Cl. 333-72.

Adler, Robert; and Sobel, Alan, to Zenith Radio Corporation. Solid state matrix having an injection luminescent diode as the light source. 3,501,676, 3-17-70, Cl. 315-169.

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Adlhart, Otto J.; Hartner, Antal J.; and Hauel, Anna P., to Engelhard Industries, Inc. Method for producing fuel cell electrodes. 3,533,851, 10-13-70, Cl. 136-120.

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Adolph, Horst G., to United States of America, Navy. Process for preparing fluorodinitro compounds. 3,542,884, 11-24-70, Cl. 260-633.

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Aelony, David; and Coury, Arthur J., to General Mills, Inc. Polycarbonates from bis-hydroxy(-alkyl and- aryl)pyromellitic diimides. 3,536,670, 10-27-70, Cl. 260-77.5

Aemmer, Peter F.; and Diem, Heinrich, to Albiswerk Zurich A.G. Phase discriminator for two electrical oscillations of the same frequency. 3,496,478, 2-17-70, Cl. 328-133.

Aemmer, Peter F.; and Mueller, Hans, to Allen-Bradley Company. Active narrow notch filter. 3,531,652, 9-29-70, Cl. 307-105.

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Af Ekenstam, Bo Thuresson; Claeson, Karl Goran; and Henn, Fritz, to Aktiebolaget Bofors. Methylalkanoyloxymethyl ketals of prednisolone derivatives. 3,524,850, 8-18-70, Cl. 260-239.55

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Affel, Herman A., Jr.; Eisenberg, Daniel E.; Hughes, Arthur D.; Schmitt, William F.; and Kerfoot, Franklin W., Jr., to Auebach Corporation for Information Sciences, mesne. Automatic parimutuel wagering system. 3,505,646, 4-7-70, Cl. 340-172.5

Affel, John J., to International Telephone and Telegraph Corporation. Method of fabricating laminate-like structures. 3,507,724, 4-21-70, Cl. 156-73.

Affeld, Klaus. Pump for conveying fluids. 3,551,078, 12-29-70, Cl. 417-436.

Affolter, Stuart W., to United States Steel Corporation. Roller detent arrangement for positively positioning a reciprocable actuating member. 3,512,428, 5-19-70, Cl. 74-491.

Afico S.A.: *See—*
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Kreber, Izaak Anthonie; and Kessi, Eduard, 3,532,064.
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AGA Aktiebolag: *See—*
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Hedberg, Oscar Emanuel; Soderberg, Leif Erik Roland; and Westberg, Johan Eric Hayden, 3,493,428.
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Agaba, David A. Magnetic spinning body apparatus. 3,510,706, 5-5-70, Cl. 310-103.

Agabaliants, Georgy Gerasimovich; Merzhanian, Artemy Arutjunovich; Brusilovsky, Sergei Alexeevich; and Sarishvili, Naskid Grigorievich. Method of producing champagne. 3,545,978, 12-8-70, Cl. 99-41.

Agahd, Konrad, deceased (by Agahd, Gerlinde, heiress); Bauer, Max; Dietrich, Volker; Hildenbrand, Adolf; and Abele, Werner, to Lever Brothers Company. Manufacture of vegetable parchment paper. 3,508,859, 4-28-70, Cl. 8-119.

Agamennone, Marco: *See—*
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Pregaglia, Gianfranco; Viviani, Bruno; and Agamennone, Marco,3,535,394.

Agar, Joram, to Solartron Electronic Group Limited, The. Force-transducers. 3,529,470, 9-22-70, Cl. 73-141.

Agar, William Oliver, to Marconi Company Limited, The. Apparatus comprising light-electric translating device for measuring speed of moving member having an ordinary surface. 3,508,066, 4-21-70, Cl. 250-219.

Agata, Akihiko: *See—*
Sato, Ryuichi; and Agata, Akihiko,3,542,494.

Agazarian, Levon B. Process for treating gum arabic. 3,547,695, 12-15-70, Cl. 134-34.

Agee, Marie H.; Sautter, Theodore C.; and Cojei, Peter, to Howell Industries, Inc. Seat mounting with telescopically arranged slide means. 3,507,472, 4-21-70, Cl. 248-429.

Ageev, Veniamin Dmitrievich: *See—*
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Agerman, Erik; Essen, Edgar; Helmersson, Sven; Jonsson, Birger; Karsten, Olav; Sivertsen, Richard; and Tjernstrom, Ove, to Allmanna Svenska Elektriska Aktiebolaget. Directly cooled electrical machine. 3,543,063, 11-24-70, Cl. 310-61.

Agett, Albert H.; Kregecz, Augustus C.; and Alverson, Robert F., to American Saint Gobain Corporation. Method and apparatus for cooling sheet glass with liquid. 3,493,357, 2-3-70, Cl. 65-116.

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Aggias, Zissis, to Henkel & Cie, GmbH. Process for the preparation of internally plasticized epoxide resins. 3,488,297, 1-6-70, Cl. 260-2.

Aggias, Zissis, to Henkel & Cie GmbH. Process for the preparation of internally plasticized epoxide resins. 3,505,427, 4-7-70, Cl. 260-830.

Aggias, Zissis, to Henkel & Cie GmbH. Process for the preparation of adhesives, putties, coating materials or sealing compounds based on modified triglycidyl isocyanurates. 3,506,735, 4-14-70, Cl. 260-830.

Aghnides, Elie P. Tubeless tire with supplemental support. 3,509,928, 5-5-70, Cl. 152-158.

Agin, Gerald J.; and Melnyk, George, to International Business Machines Corporation. Proportional damping for motor drive. 3,541,418, 11-17-70, Cl. 318-18.

Agin, Julius, to RCA Corporation. Dead track handling. 3,518,625, 6-30-70, Cl. 340-146.1

Agitair Division, Aeronca, Inc.: *See—*
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Agliata, Thomas P.; and Clark, Harold E., to Xerox Corporation. Pantographic implemented overhead projector. 3,501,838, 3-24-70, Cl. 33-25.

Aglietti, Giancarlo; Baratella, Pietro; and Lugo, Luigi, to Societa Italiana Resine S.p.A. Processing spent catalysts. 3,538,017, 11-3-70, Cl. 252-415.

Aglietti, Giancarlo; Canavesi, Roberto; and Reni, Cesare, to Societa Italiana Resine S.p.A. Method of purifying cumene in cumene phenol process. 3,551,511, 12-29-70, Cl. 260-674.

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AgMac Inc.: *See—*
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Agner, Kjell. Apparatus for automatic analysis. 3,501,273, 3-17-70, Cl. 23-253.

Agnew, Kenneth Leslie, to Battelle Development Corporation, The. Photographic reproduction by discrete intersecting rays with compression in the third dimension. 3,544,402, 12-1-70, Cl. 156-58.

Agnew, Thomas I.; and Kuhn, Richard, to Gulton Industries, Inc., mesne. Cable fault monitoring system. 3,496,416, 2-17-70, Cl. 317-18.

Agnone, Frank A. Surgical finger cot. 3,511,242, 5-12-70, Cl. 128-303.

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Agranat, Edward A., to Amicon Corporation. Ultrafiltration batch cell. 3,539,155, 11-10-70, Cl. 259-8.

Agren, Sven Birger; and Stenman, Erkki Antero, to Aktiebolaget Hagglund & Soner. Fluid shock absorber. 3,516,520, 6-23-70, Cl. 188-96.

Agres, Tom J. Laminated display form. 3,513,580, 5-26-70, Cl. 40-107.

Agrest, Jacob. Boiler. 3,536,049, 10-27-70, Cl. 122-235.

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Agriesti, Carl J., to Owens-Corning Fiberglas Corporation. Sectional pipe insulation assembly. 3,542,081, 11-24-70, Cl. 138-161.

Agrios, John P.; and Stern, Richard A., to United States of America, Army. Non-reciprocal waveguide phase shifter having side-by-side ferrite toroids. 3,524,152, 8-11-70, Cl. 333-24.1

Agriteel Limited: *See—*
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'Agroman' Empresa Constructora, S.A.: *See—*
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Agruss, Bernard; Hietbrink, Earl H.; and Nagey, Tibor F., to General Motors Corporation. Method for regenerating molten metal fuel cell reactants. 3,503,808, 3-31-70, Cl. 136-83.

Agtech Systems Corporation: *See—*
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Agterbosch, Johannes: *See—*
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Aguilar, Henry. Orienting device and method. 3,487,904, 1-6-70, Cl. 193-43.

Aguilar, Henry, to Basic Vegetable Products, Inc. Onion orienter and cutter. 3,515,193, 6-2-70, Cl. 146-224.

Aguilar, Henry. Seat tilting chair. 3,539,220, 11-10-70, Cl. 297-320.

Aguilar, Henry; Camezon, Raymond E.; and McClelland, Etheridge R., to Filper Corporation. Feeder. 3,547,249, 12-15-70, Cl. 198-30.

Aguilar, Ralph. Collapsible writing desk. 3,494,306, 2-10-70, Cl. 108-6.

Aguilar, Ralph. Walking and training device. 3,524,642, 8-18-70, Cl. 272-70.1

Aguilo, Adolfo; and Wheeler, Edward Norwood, to Celanese Corporation. Preparation of vinyl acetate and regeneration of cupric acid salt catalyst. 3,492,340, 1-27-70, Cl. 260-497.

Agule, George J., Sr.: *See—*
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Agulnek, Harry, to Singer Company, The. Cam adjustment apparatus for a circular knitting machine. 3,525,239, 8-25-70, Cl. 66-54.

Agulnek, Harry, to Singer Company, The. Knitting machine apparatus employing self-guiding sinkers. 3,540,237, 11-17-70, Cl. 66-107.

Agusta, Benjamin; Bardell, Paul H.; Castrucci, Paul P.; Henle, Robert A.; and Pecoraro, Raymond P., to International Business Machines Corporation. Monolithic integrated memory array structure including fabrication and package therefor. 3,508,209, 4-21-70, Cl. 340-173.

Agusta, Benjamin; and Lubart, Neil D., to International Business Machines Corporation. Complementary PNP-NPN transistors and fabrication method therefor. 3,524,113, 8-11-70, Cl. 317-235.

Ahamed, Syed V. Apparatus responsive to the slip of an electrical machine. 3,525,026, 8-18-70, Cl. 318-232.

Aharoni, Shaul M., to National Presto Industries, Inc. Production of polytetrafluoroethylene-containing coatings on metallic bases. 3,511,690, 5-12-70, Cl. 117-71.

Ahearn, George P.; and Sandvik, Erik I., to Esso Production Research Company. Surfactant injection process. 3,491,834, 1-27-70, Cl. 166-273.

Ahearn, Paul J., to United States of America, Army. Method of melting titanium. 3,493,363, 2-3-70, Cl. 75-10.

Ahern, Charles J., to Bendix Corporation, The. Fluidic OR/NOR gate. 3,543,780, 12-1-70, Cl. 137-81.5

Ahern, Charles J.; Higgins, Paul T.; and Kiwak, Robert S., to Bendix Corporation, The. Fluid device with improved fan-in capability. 3,550,605, 12-29-70, Cl. 137-81.5

Ahern, Douglas K., to Eastman Kodak Company. Automatic degating of injection molded articles. 3,508,299, 4-28-70, Cl. 18-30.

Ahern, Edward J., to Felton, S. A., & Son Company, Incorporated. Rotary brush assemblies. 3,546,731, 12-15-70, Cl. 15-183.

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Ahlberg, Roland G. Directional cap for spray dispensers. 3,550,857, 12-29-70, Cl. 239-288.

Ahlbin, Hans Gustav Erik. Injection moulding device with a plurality of cavity plates. 3,509,602, 5-5-70, Cl. 18-42.

Ahlbrecht, Arthur H., to Minnesota Mining and Manufacturing Company. Fluorocarbon-nitrile process and products thereof. 3,493,599, 2-3-70, Cl. 260-465.4

Ahle, James L.; and Doyle, William C., Jr., to Gulf Research & Development Company. 3H-1,2,3-benzodithiazole-2-oxides as herbicides. 3,490,893, 1-20-70, Cl. 71-91.

Ahlemeyer, William L., to Anaconda Aluminum Company. Fluid-tight container. 3,520,463, 7-14-70, Cl. 229-4.5

Ahlen, Karl Gustav, to S.R.M. Hydromekanik AB. Hydrostatic brakes. 3,525,422, 8-25-70, Cl. 188-92.

Ahlen, Karl Gustav, to S. R. M. Hydromekanik AB. Serrated couplings. 3,527,063, 9-8-70, Cl. 64-23.

Ahlen, Karl Gustav, to S.R.M. Hydromekanik, AB. Torque converter clutch with fixed and stationary motors. 3,542,177, 11-24-70, Cl. 192-86.

Ahlen, Karl Gustav, to S. R. M. Hydromekanik AB. Hydrodynamic torque converters. 3,543,517, 12-1-70, Cl. 60-54.

Ahlgren, Hans Hjalmar; and Leidvik, Martin, to Stabilator Akiebolag. Method of anchoring rods or the like in drill holes in earths or rocks. 3,494,133, 2-10-70, Cl. 61-35.

Ahlman, Sven R., to Torrington Company, The. Apparatus for forming bearing retainers. 3,535,964, 10-27-70, Cl. 83-697.

Ahlrich, Willard K. Ventilating hood. 3,513,766, 5-26-70, Cl. 98-115.

Ahlsten, James C. Rotary fan internal combustion engine. 3,491,728, 1-27-70, Cl. 123-8.

Ahlston, Arthur G., to Ventura Tool Company. Apparatus for hanging well bore casing. 3,489,436, 1-13-70, Cl. 285-18.

Ahlstone, Arthur G., to Ventura Tool Company. Well bore casing hanger apparatus. 3,492,026, 1-27-70, Cl. 285-18.

Ahmadi, Mansoor A.: *See—*
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Ahmed, Samir A.; Faith, Thomas J., Jr.; and Hoffman, Graham W., to RCA Corporation. RF excitation pumping of gas lasers by means of a wave guide and coupling coils. 3,521,119, 7-21-70, Cl. 315-39.

Ahn, Kie Y., to International Business Machines Corporation. Ferromagnetic film. 3,519,498, 7-7-70, Cl. 148-31.55

Ahn, Kie Y.; and Shafer, Merrill W., to International Business Machines Corporation. Film of magneto-optical rare earth oxide including method therefor. 3,539,382, 11-10-70, Cl. 117-106.

Ahr, Robert Louis, to Morton International, Inc. Low density foamed metal oxides. 3,497,455, 2-24-70, Cl. 252-62.

Ahrabi, Robert B., to Oil Center Research, Inc. Self-molding packing. 3,490,986, 1-20-70, Cl. 161-174.

Ahrabi, Robert B., to Oil Center Research, Inc. Sintered polytetrafluoroethylene joint sealing ribbon. 3,541,070, 11-17-70, Cl. 260-92.1

Ahrens, Claude Wesley. Spring supported merry-go-round type apparatus. 3,511,498, 5-12-70, Cl. 272-33.

Ahrens, Claude W. Roller and track assembly for rotatably supporting a playground tread barrel. 3,536,324, 10-27-70, Cl. 272-1.

Ahrens, Colin G. Bale handling apparatus. 3,493,134, 2-3-70, Cl. 214-147.

Ahrens, Gerd: *See—*
Kratzenberg, Dietrich; Forster, Franz; and Ahrens, Gerd, 3,495,542.

Ahrens, Gerhard W. Synergistic antioxidant composition for natural oleaginous materials. 3,502,594, 3-24-70, Cl. 252-404.

Ahrens, Gerhard W. Nonsugarbase compounded tablet or lozenge base material for use in the preparation of suckable, structurally sound and hard at room temperature, nonhygroscopic, noncariesforming tablets or lozenges. 3,525,791, 8-25-70, Cl. 424-280.

Ahrens, Richard T.; and Apelgren, Eric S., to Chicago Metallic Manufacturing Company. Bread set. 3,520,438, 7-14-70, Cl. 220-23.2

Ahrens, Robert H., to Milwaukee Chaplet & Mfg. Company, Inc. Magnetic line follower for an X-Y motor control. 3,505,580, 4-7-70, Cl. 318-162.

Ahrens, Wilhelm; Lea, Hans; Rohm, Fritz; and Strahle, Heinz, to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler. Dental material measuring apparatus. 3,534,943, 10-20-70, Cl. 259-12.

Ahrons, Richard W., to RCA Corporation. Complementary semiconductor matrix arrays for low power dissipation logic application. 3,550,089, 12-22-70, Cl. 340-166.

Ahrons, Richard W.; and Katz, Stanley, to RCA Corporation. Unbalanced memory cell. 3,493,786, 2-3-70, Cl. 307-279.

Ahrweiler, Karl-Heinz, to Maschinenfabrik Eduard Kuesters. Apparatus for determining the lateral deviation from the center of a breadth passing a machine. 3,541,437, 11-17-70, Cl. 324-65.

Ahsmann, Gerardus Josephus Marie, to U.S. Philips Corporation, mesne. Gas laser having a conical channel. 3,510,796, 5-5-70, Cl. 331-94.5

Aiba, Yoshikazu; and Furumori, Takaki, to Taki Fertilizer Manufacturing Co., Ltd. Coagulant and method for treating aqueous medium comprising a basic metal salt and a multivalent anion. 3,544,476, 12-1-70, Cl. 252-175.

Aichelin, J., Firma: *See—*
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Aichelman, Edward O.: *See—*
Kienast, John F.; and Aichelman, Edward O.,3,529,964.
Aichenegg, Paul C., to Chemagro Corporation. Phosphonyl chlorides, thiophosphonyl chlorides and process of making same. 3,489,825, 1-13-70, Cl. 260-957.
Aichenegg, Paul C., to Chemagro Corporation. Process for killing nematodes using sulfenyl phosphoryl amidates. 3,504,086, 3-31-70, Cl. 424-219.
Aichenegg, Paul C.; and Emerson, Carl D., to Chemagro Corporation. Method for producing bis(polychloroethyl) sulfides and polychlorovinyl sulfides. 3,529,025, 9-15-70, Cl. 260-609.
Aicher, Hans. Electromagnetic coupler for a switching matrix. 3,514,755, 5-26-70, Cl. 340-166.
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Albedyll, Joachim V.; and Wasielewski, Erwin V., to Agfa-Gevaert Aktiengesellschaft. Adjustable exposure control for photographic cameras. 3,505,937, 4-14-70, Cl. 95-10.
Albee, Percy Frederick, Jr., to Q-Panel Corporation. Auxiliary stage for a visual projector. 3,544,211, 12-1-70, Cl. 353-120.
Albee, Thomas K., to Bunker-Ramo Corporation, The. Submarine communications antenna system. 3,528,014, 9-8-70, Cl. 325-427.
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Albert, Harry Elmer, to Pennwalt Corporation. Inhibiting popcorn polymer formation with hydroxy benzene tertiary amine oxide compound. 3,520,943, 7-21-70, Cl. 260-666.5
Albert, Harry Elmer, to Pennsalt Chemicals Corporation. Inhibiting popcorn polymer formation with tertiary amino naphthol compound. 3,524,894, 8-18-70, Cl. 260-666.5
Albert, Harry Elmer, to Pennwalt Corporation. Inhibiting popcorn polymer formation with tertiary amino dialkyl phenol compound. 3,526,673, 9-1-70, Cl. 260-666.5
Albert, Harry Elmer; and Haines, Paul Gordon, to Pennwalt Corporation. Adducts of phenols and hydroxylamines. 3,493,603, 2-3-70, Cl. 260-473.
Albert, Irving Arthur, to Ideal Toy Corporation. Flat toy figure with rooted hair. 3,500,578, 3-17-70, Cl. 46-172.
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Kodama, Jiro K.; and Albert, James R.,3,549,757.
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Albert, Jean Paul. Electric ratchet wrench. 3,491,616, 1-27-70, Cl. 74-625.
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Albert, Martin. Articulated key and lock combination. 3,533,254, 10-13-70, Cl. 70-355.
Albert, Paul McHenry, to Gamrad, Inc., mesne. Turbidity indicator using superimposed converging light beams. 3,506,360, 4-14-70, Cl. 356-103.
Albert, William C., to Singer-General Precision, Inc. Face type liquid metal seal and method of making the same. 3,502,342, 3-24-70, Cl. 277-17.
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Albert, William G., to Bell Telephone Laboratories, Incorporated. Electrical connectors for coaxial cables. 3,502,788, 3-24-70, Cl. 174-88.
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Albrecht, Edwin G.; Larsen, Ludolph M.; Neuman, Milton C.; and Wacker, Charles J., to United States of America, Navy, mesne. Fuze setter apparatus. 3,494,251, 2-10-70, Cl. 89-6.
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Albrecht, Harry Allen; and Plati, John Thomas, to Hoffmann-La Roche Inc. Process for preparing aminoisoxazoles. 3,544,582, 12-1-70, Cl. 260-307.
Albrecht, Harry Allen; and Plati, John Thomas, to Hoffmann-La Roche Inc. 3-Chloro-2-methoxy-2-alkenenitriles. 3,547,973, 12-15-70, Cl. 260-465.6

Albrecht, Leonard N.; and Harris, Joseph P., to Modern Election Equipment Co. Collapsible voting compartments. 3,550,540, 12-29-70, Cl. 108-23.

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Albrecht, William L.; and Fleming, Robert W., to Richardson-Merrell Inc. Bis-basic esters and thioesters of fluoranthene. 3,531,489, 9-29-70, Cl. 260-294.3

Albrektson, Helge Ragnar. Method of forming a tubular article. 3,503,122, 3-31-70, Cl. 29-558.

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Albright, Donald R.; and Jackson, William B., to General Electric Company. Method and apparatus for detecting rotor flux variations in the air gap of a dynamoelectric machine. 3,506,914, 4-14-70, Cl. 324-51.

Albright, Frank E.; and Bucey, William W., to Snyder Corporation. Workpiece finder and balance mechanism. 3,529,510, 9-22-70, Cl. 90-14.

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Albrile, Walter, to Olivetti, Ing., C., & C., S.p.A. Switch control and keyboard locking device for an electric typewriter. 3,543,905, 12-1-70, Cl. 197-12.

Albrinck, Donald Joseph; and Keeling, Ronald James, to Formica Corporation. Fully flexible heat and pressure consolidated decorative laminate comprising a nitrile rubber latex impregnated base, an acrylic emulsion impregnated decorative paper, and a transparent thermoplastic surface film. 3,547,769, 12-15-70, Cl. 161-248.

Albro, Henry H., to Cabot Corporation. Adjustable pipe hanger. 3,493,206, 2-3-70, Cl. 248-59.

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Alburger, James R. Method and means for penetrant inspection of lox- wetted parts using a nonvolatile fluorocarbon penetrant and developer carrier. 3,489,898, 1-13-70, Cl. 250-71.

Alburger, James R. Method of masking fluorescence in fluorescent dye tracer inspection process materials. 3,506,827, 4-14-70, Cl. 250-71.

Alburger, James R. Fluorescent tracer process and compositions. 3,527,709, 9-8-70, Cl. 252-301.2

Alburger, James R. Electrically responsive color-forming method of nondestructive testing. 3,530,045, 9-22-70, Cl. 204-1.

Alburger, James R. Tracer processes employing ultraviolet absorber materials. 3,530,295, 9-22-70, Cl. 250-71.

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Alburn, Harvey E.; Clark, Donald E.; and Grant, Norman H., to American Home Products Corporation. Process for the preparation of 6-(alpha-amino- acylamino) penicillanic acids. 3,520,876, 7-21-70, Cl. 260-239.1

Alburn, Harvey E.; Clark, Donald E.; Grant, Norman H.; and Russell, Peter B., to American Home Products Corporation. 6-(Indan-2-amino-2-carboxamido) and 6-(1,2,3,4- tetrahydronaphthalene-2-amino-2-carboxamido) penicillanic acids. 3,494,915, 2-10-70, Cl. 260-239.1

Alburn, Harvey E.; Grant, Norman H.; and Clark, Donald E., to American Home Products Corporation. ·Arylacyl-γ-aminocarboxylic acids. 3,509,208, 4-28-70, Cl. 260-518.
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Alcock, John Forster, to Ricardo & Co., Engineers Ltd. Lubrication of bearings of reciprocating engines or pumps. 3,545,569, 12-8-70, Cl. 184-6.

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Aldea, Valentin: *See—*
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Alden, Milton, to Alden Research Foundation. Scanning apparatus. 3,526,774, 9-1-70, Cl. 250-219.

Alden, Milton, to Alden Research Foundation. Grounded plug. 3,531,757, 9-29-70, Cl. 339-14.

Alden, Milton. Cartridge for facsimile recording webs. 3,545,004, 12-1-70, Cl. 346-74.

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Alden Self-Transit Systems Corporation: *See—*
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Aldenhoff, Bernard J., to Smith, A. O., Corporation. Bi-directional direct current load supply. 3,543,134, 11-24-70, Cl. 321-8.

Aldenkamp, Albertus Antonie, to U.S. Philips Corporation, mesne. Method of manufacturing magnetically anisotropic permanent magnets with a crystal orientation. 3,545,525, 12-8-70, Cl. 164-82.

Alder, Robert Lee, to Jackson, Byron, Inc. Pulse ring mounting. 3,526,041, 9-1-70, Cl. 33-205.

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Alderman, Bobby P.; Basrai, Habil S.; Caywood, James A.; and Howard, William J., to Ford Motor Company. Tractor mounted loader. 3,494,495, 2-10-70, Cl. 214-762.

Alderson, Edwin R., to Borg-Warner Corporation. Intake manifold pressure responsive fuel injection system. 3,494,337, 2-10-70, Cl. 123-103.

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Aldred, Peter Arthur; and Farthing, Geoffrey, to Imperial Chemical Industries Limited. Gripping device for ropes. 3,523,338, 8-11-70, Cl. 24-122.6

Aldred, Walter Edward, to Redman Tools Holding Limited. Machines for straightening bars or tubes. 3,533,257, 10-13-70, Cl. 72-99.

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Warawa, Edward John; and Mueller, Nancy Jean, 3,506,673.

Aldrich, John A.; Wright, Paul E.; Knapp, Phillip M.; and Berry, Jon R., to AAI Corporation. Extended range hit indicator system. 3,492,742, 2-3-70, Cl. 35-25.

Aldrich, Paul E., to Du Pont de Nemours, E. I., and Company. Antidepressant compositions and methods employing 4-arylbicyclo[2.2.2]octyl urethans. 3,507,957, 4-21-70, Cl. 424-263.

Aldrich, Paul E.; and Hermann, Edward C., to Du Pont de Nemours, E. I., and Company. Pharmaceutically active 4-phenylbicyclo[2.2.2]- octane and oct-2-ene-1-carboxamides and derivatives thereof. 3,530,165, 9-22-70, Cl. 260-479.

Aldridge, Clyde L., to Esso Research and Engineering Company. Steam desulfurization process. 3,494,860, 2-10-70, Cl. 208-248.

Aldridge, Clyde L., to Esso Research and Engineering Company. Production of metal carbonyls and carbon black. 3,498,749, 3-3-70, Cl. 23-203.

Aldridge, Clyde L., to Esso Research and Engineering Company. Preventing catalyst poisoning by sulfur. 3,539,297, 11-10-70, Cl. 23-213.

Aldridge, James E.; and Carter, Andrew P., to Monsanto Company. Clamp for bale wrap carton. 3,503,325, 3-31-70, Cl. 100-102.

Aldridge, Silas B. Lemon squeezer. 3,515,057, 6-2-70, Cl. 100-126.

Alduk, Frank P. End case packer. 3,546,838, 12-15-70, Cl. 53-77.

Aleixo, Antonio Nunes, to Du Pont de Nemours, E. I., and Company. Composite filament with elastomeric core and closed- cell foam sheath. 3,507,741, 4-21-70, Cl. 161-175.

Aleks, Vytant P., to Keystone Consolidated Industries, Inc. Handle latch and label holder. 3,549,228, 12-22-70, Cl. 312-320.

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Alessi, Andrew J.; and Roome, Douglas P., to Standard Packaging Corporation. Air evacuated package. 3,490,576, 1-20-70, Cl. 206-45.11

Alessi, Vincent J. Sealed electrical circuit component. 3,549,959, 12-22-70, Cl. 317-234.

Alewitz, Sam, to Perfection Corporation. Anode fitting. 3,542,663, 11-24-70, Cl. 204-197.

Alexander, Alfred J., to Elliott Brothers (London) Limited. Function generator with pulse-width modulator for controlling a gate in accordance with a time-varying function. 3,525,861, 8-25-70, Cl. 235-197.

Alexander, Alfred John; Bishop, Geoffrey Stanley; Leat, Andrew Francis Vincent; and Tooze, Michael John, to Elliott Brothers (London) Limited. Function generators. 3,500,031, 3-10-70, Cl. 235-186.

Alexander Arthur D., III, to Polaroid Corporation. Outboard polarizing light-transmitting means. 3,551,027, 12-29-70, Cl. 350-155.

Alexander, Arthur H. Two-handed safety control. 3,491,867, 1-27-70, Cl. 192-131.

Alexander, Ben Howes, to Gillette Company, The. Safety razor. 3,529,351, 9-22-70, Cl. 30-40.1

Alexander, Bruce A.; and Nagy, Sandor, to International Telephone and Telegraph Corporation. Transfer fixture. 3,501,825, 3-24-70, Cl. 29-203.

Alexander, Charles F., Jr., to Brunswick Corporation. Outboard drive unit for watercraft. 3,487,803, 1-6-70, Cl. 115-17.

Alexander, Claude L.; Gray, Lysle B.; and Long, John I., to Brunswick Corporation. Fluid control system. 3,547,141, 12-15-70, Cl. 137-263.

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Alexander, Donald Kenneth. Carriages for sorting conveyors. 3,489,278, 1-13-70, Cl. 209-74.

Alexander, Earl G.; Emmons, Stephen P.; and Kilby, Jack S., to Texas Instruments, Incorporated. Thermal printer. 3,496,333, 2-17-70, Cl. 219-216.

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Alexander, John A., to United States of America, Army. Process for controlled sub-micron dispersions in alloys. 3,518,106, 6-30-70, Cl. 117-71.

Alexander, John C., to Essex International, Inc. Rotary fluid valve construction. 3,550,627, 12-29-70, Cl. 137-625.46

Alexander, John Henry, to International Standard Electric Corporation. Method of making a semiconductor with a liftable metallic layer. 3,526,555, 9-1-70, Cl. 156-17.

Alexander, John (Jack), to Technidyne, Inc. Optical alignment methods and means utilizing coordinated laser beams and laser beam coordinating means for same. 3,533,700, 10-13-70, Cl. 356-138.

Alexander, John Malcolm; and Lengyel, Béla, to National Research Development Corporation. Extrusion method and apparatus. 3,538,730, 11-10-70, Cl. 72-60.

Alexander, John M., to Salas Corporation of America. Roller hearth kiln. 3,489,397, 1-13-70, Cl. 263-6.

Alexander, L Bruce; Bushman, Ronald C.; and Holbrook, Franklin K., to Brown International Corporation. Juice filter. 3,507,392, 4-21-70, Cl. 210-172.

Alexander, Leon Rollin. Flocked protective coverings. 3,502,207, 3-24-70, Cl. 206-59.

Alexander, Lewis R.; and Gortman, Isadore, to United States of America, Navy, mesne. Random selected switch actuator device. 3,538,284, 11-3-70, Cl. 200-153.

Alexander, Nelson E., to United States of America, Army. Bioelectrochemical transducer. 3,502,559, 3-24-70, Cl. 204-195.

Alexander, Nelson E., to United States of America, Army. Spaced wall type, reverse osmosis filter assembly. 3,504,801, 4-7-70, Cl. 210-321.

Alexander, Ralph D. High pressure hydraulic apparatus. 3,491,948, 1-27-70, Cl. 239-127.

Alexander, Raymond L., to Moorfeed Corporation. Assembly feeder. 3,523,316, 8-11-70, Cl. 10-155.

Alexander, Richard L.; Ashburn, Donald G.; Clampitt, Bert H.; and Anspon, Harry D., to Gulf Research & Development Company. Ethylene polymer foam compositions and process for making same. 3,544,490, 12-1-70, Cl. 260-2.5

Alexander, Richard L.; Baker, Calvin C.; and Schmid, Richard G., to Gulf Oil Corporation. Lid conveyor system. 3,503,486, 3-31-70, Cl. 198-33.

Alexander, Robert A. Batting practice device. 3,531,115, 9-29-70, Cl. 273-26.

Alexander, Roy P.; and Schroeder, Hansjuergen A., to Olin Mathieson Chemical Corporation. Polymers of meta-carborane acyl chlorides. 3,499,926, 3-10-70, Cl. 260-544.

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Allen, John W., to Stanray Corporation. Lift mechanism arrangement for hinged roof. 3,493,131, 2-3-70, Cl. 214-44.

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Allen, Joseph C., to Texaco Inc. Well stimulation with vaporization of formation water. 3,524,504, 8-18-70, Cl. 166-303.

Allen, Joseph C., to Texaco Inc. Method for recovery of hydrocarbons from a subterranean formation previously produced by solution gas drive. 3,545,545, 12-8-70, Cl. 166-273.

Allen, Joseph C., to Texaco Inc. Pipeline transportation of waxy oils. 3,548,846, 12-22-70, Cl. 137-13.

Allen, Joseph C.; Teasdale, Thomas S.; and Cady, George C., to Texaco Inc. Oil recovery by steam stimulation and in situ combustion. 3,515,212, 6-2-70, Cl. 166-245.

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Alper, James B. Condition monitoring and readout device. 3,501,757, 3-17-70, Cl. 340-187.

Alpers, Frederick C., to United States of America, Navy. Television frame rate reduction system. 3,505,467, 4-7-70, Cl. 178-6.8

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Alpert, Robert J.; and Beekhuysen, John W., to Blessings, Inc. Disposable hot pad. 3,535,708, 10-27-70, Cl. 2-20.

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Alsgaard, Richard W., to Dow Corning Corporation. Higher alkyl containing disiloxanols. 3,542,834, 11-24-70, Cl. 260-448.2

Alsgaard, Richard W., to Dow Corning Corporation. (3-Chloro-2-methylpropyl) dimethylsilanol. 3,542,835, 11-24-70, Cl. 260-448.2

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Alston, Terence G., to Union Oil Company of California. Use of fatty acid salts in the sulfoxidation process. 3,518,299, 6-30-70, Cl. 260-513.

Alt, Gerhard H.; and Strelau, Robert J., to Monsanto Company. Polymeric amines. 3,551,495, 12-29-70, Cl. 260-583.

Alt, Gunter. Hammer crusher. 3,531,055, 9-29-70, Cl. 241-192.

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Altemare, Robert L., to Sherwin-Williams Company, The, mesne. Power driven rotary end brush. 3,492,684, 2-3-70, Cl. 15-198.

Alten, Kurt. Transloading bridge for ramps. 3,526,011, 9-1-70, Cl. 14-71.

Alten, Kurt. Adjustable dockboard. 3,537,120, 11-3-70, Cl. 14-71.

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Alter, Jerry. Apparatus for rotational molding of thermoplastic articles. 3,510,911, 5-12-70, Cl. 18-26.

Altermatt, Rudolf; Entschel, Roland; and Muller, Curt, to Sandoz Ltd., also known as Sandoz A.G. Basic monoazo dyes containing an N-methylpyridinium, 2- or 4-dimethylene group. 3,518,247, 6-30-70, Cl. 260-156.

Altermatt, Rudolf; and Mueller, Curt, to Sandoz Ltd.4-(2'-or 4'-Pyridylethylamino)-azobenzene dyes. 3,549,611, 12-22-70, Cl. 260-156.

Altermatt, Ruedi; and Mueller, Curt, to Sandoz Ltd., a/k/a Sandoz A.G. Disperse dyes of the azobenzene series. 3,544,549, 12-1-70, Cl. 260-207.

Altermatt, Ruedi; and Wicki, Heinz, to Sandoz Ltd., a/k/a Sandoz A.G. Monoazo dyes of low solubility having a diphenylamine group. 3,535,306, 10-20-70, Cl. 260-207.1

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Altfeld, Albert, to Novacel Societe Anonyme. Method for making package-opening tear-off strips of small width from a band of large width. 3,527,630, 9-8-70, Cl. 156-191.

Altfillisch, Michael D., to Electrosyn Technology Laboratories, Inc. Pressure transducers. 3,530,719, 9-29-70, Cl. 73-398.

Althuber, Horst, to U.S. Philips Corporation, mesne. Shaped permanent magnet erasing device for magnetizable record carriers. 3,548,113, 12-15-70, Cl. 179-100.2

Altic, Larry D.; and Vick, Burl H., to National Cash Register Company, The. Totalizer control mechanism. 3,537,641, 11-3-70, Cl. 235-60.2

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Altman, Joseph G.; and Friedrich, Jan L., to Foster Wheeler Corporation. Once-through vapor generator with division wall. 3,548,788, 12-22-70, Cl. 122-406.

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Altman, Richard M.; and Korones, Herbert D., to Bausch & Lomb Incorporated. Opto-electronic radiant energy beam range finder. 3,515,480, 6-2-70, Cl. 356-4.

Altman, Richard M.; and Van Orden, Lynn L., to Bausch & Lomb Incorporated. Zoom type projection lens system having three movable and a finite focus. 3,533,678, 10-13-70, Cl. 350-184.

Altmann, Berton G., to Kaiser Aluminum & Chemical Corporation. Waste combustion system. 3,499,400, 3-10-70, Cl. 110-8.

Altmann, Berton G.; and Bailey, John D., to Kaiser Aluminum & Chemical Corporation. Material handling apparatus. 3,513,768, 5-26-70, Cl. 100-98.

Altmann, Conrad; and Leenhouts, Donald D., to Eastman Kodak Company. Container and dispensing mechanism for toner powder. 3,501,065, 3-17-70, Cl. 222-392.

Altmann, Conrad: *See*—
Drexler, Roger A.; and Altmann, Conrad,3,543,720.

Altmann, Werner E., to Daimler-Benz Aktiengesellschaft. Self-locking differential gear for vehicles, especially for motor vehicles. 3,546,968, 12-15-70, Cl. 74-710.5

Altmayer, John, to New-Tronics Corporation, mesne. Impedance matching device and method of tuning same. 3,513,472, 5-19-70, Cl. 343-750.

Altmeppen, Johannes; and Steidl, Albert, to Zahnradfabrik Friedrichshafen Aktiengesellschaft. Valve device. 3,500,854, 3-17-70, Cl. 137-118.

Alton, James A. Automatic closing system for bifold overhead doors. 3,504,729, 4-7-70, Cl. 160-188.

Alton, James A. Reciprocating bed and platen printing machine with web feeding means. 3,540,375, 11-17-70, Cl. 101-292.

Alton, Thomas W., to Pak-Well Corporation. Envelope assembly and envelope structure therefor. 3,547,343, 12-15-70, Cl. 229-69.

Altonji, John A.; and Vaiana, Joseph G., to Potter Instrument Company, Inc. Magnetic storage tape cartridge. 3,513,458, 5-19-70, Cl. 340-174.1

Altonji, John A.; and Vaiana, Joseph G., to Potter Instrument Company, Inc. Laterally loaded tape mechanism with retractible back and edge guides. 3,518,647, 6-30-70, Cl. 340-174.1

Altonji, John A.: *See*—
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Altounyan, Roger Edward Collingwood; and Hartley, Philip Saxton. Sterilisable cover for a pressurized aerosol container. 3,487,979, 1-6-70, Cl. 222-183.

Altounyan, Roger Edward Collingwood; and Howell, Harry, to Fisons Pharmaceuticals Limited. Inhalation device. 3,507,277, 4-21-70, Cl. 128-208.

Altounyan, Roger Edward Collingwood; Howell, Harry; and Rowlands, Martyn Omar, to Fisons Pharmaceuticals Limited. Oral inhaler with spring biased, cam driven piercing device. 3,518,992, 7-7-70, Cl. 128-208.

Altscher, Siegfried: *See*—
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Altschul, Howard S., to Pfizer, Chas., & Co., Inc. Diagnostic reagent. 3,497,319, 2-24-70, Cl. 23-230.

Altshuler, Saul: *See*—
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Glatt, Leonard; and Altshuler, Saul,3,517,334.

Altwicker, Almar R.; and Michaels, Leo, to Universal Oil Products Company. N-substituted aminobenzenecarboxamides. 3,488,388, 1-6-70, Cl. 260-558.

Altwicker, Elmar R., to Universal Oil Products Company. N-isobutyl-N'sec-(octyl or nonyl)- phenylenediamines. 3,504,032, 3-31-70, Cl. 260-577.

Altwicker, Elmar R., to Universal Oil Products Company. N-substituted imides, acid-amides and ester amides. 3,507,880, 4-21-70, Cl. 260-326.

Alumacraft Marine Products Corporation: *See—*
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Aluminum Box Company: *See—*
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Aluminum Company of America: *See—*
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Terrill, James R.; and Dzierski, Stanley F., 3,533,824.
Trostle, John W.; Kaminski, Elton G.; and Hasselbeck, Richard J., 3,548,555.
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Aluotto, Peter A. Coffee dispenser. 3,543,814, 12-1-70, Cl. 141-335.

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Alvarez-Calderon, Alberto. Leading edge flap of variable camber and thickness. 3,524,610, 8-18-0, Cl. 244-42.

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Alvarez, Francisco, to Suntex Corporation. 17-Hydroxyalkynylation process. 3,499,014, 3-3-70, Cl. 260-397.4

Alvarez, Francisco, to Syntex Corporation. Synthesis of 19-nor and ring A aromatic steroids and intermediates therefor. 3,511,860, 5-12-70, Cl. 260-397.3

Alvarez, Francisco; and Halpern, Otto, to Syntex Corporation. Preparation of 19-nor-Δ^4-3-one steroids. 3,491,129, 1-20-70, Cl. 260-397.3

Alvarez, Jose A.; Upchurch, Edward F.; and Wolfe, Charles C., to Esso Research and Engineering Company. Glycol drying in a methyl chloride dehydration plant. 3,531,449, 9-29-70, Cl. 260-85.3

Alvarez, Luis W.; and Humphrey, William E., to Optical Research and Development Corporation. Variable-power lens and system. 3,507,565, 4-21-70, Cl. 351-17.

Alvarez, Ramon A. Container package and blank for same. 3,528,599, 9-15-70, Cl. 229-40.

Alvarez, Robert J., to General Electric Company. Household refrigerator including exterior ice service. 3,537,273, 11-3-70, Cl. 62-266.

Alvarez, Robert J., to General Electric Company. Ice piece dispenser including stall eliminating means. 3,537,618, 11-3-70, Cl. 222-333.

Alvarez, William: *See—*
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Alvarez, William. Roll forming machine. 3,505,851, 4-14-70, Cl. 72-249.

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Alvey, Joseph R., 1/3 to Corbell, Roy E., and 1/3 to Bryant, Rudy C Elevatable fifth wheel. 3,534,983, 10-20-70, Cl. 280-438.

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Alwall, Nils; Hagstrom, Nils Olov Vilhelm; Ostergren, Bo Lennart; and Riede, Gerhard, to AB Gambro. Liquid distribution means in dialysis means for purifying blood or other liquids. 3,501,011, 3-17-70, Cl. 210-321.

Alwall, Nils; Ostergren, Bo Lennart; and Hagstrom, Nils Olov Vilhelm, to AB Gambro. Dialysis blood distribution grooves. 3,511,381, 5-12-70, Cl. 210-321.

Alwall, Nils; Ostergren, Bo Lennart; and Hagstrom, Nils Olov Wilhelm, to AB Gambro. Dialysis means having spacing disks with gratings displaced or twisted in relation to each other. 3,516,548, 6-23-70, Cl. 210-321.

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Alwin, LeRoy V. Device for correlating three input variables. 3,529,366, 9-22-70, Cl. 35-74.

Alwin, Vinson C.: *See—*
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Alyn-Dale, Inc.: *See—*
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Alza Corporation: *See—*
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Alziari, Louis. Extensible beam. 3,513,612, 5-26-70, Cl. 52-632.

Alzner, Georg, to Alzner National Arch Supports Ltd. Arch supports. 3,543,765, 12-1-70, Cl. 128-588.

Alzner National Arch Supports Ltd.: *See—*
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Amada, Iwao; Inowaki, Ikuji; and Uchino, Shin-Ichi, to Eisai Kabushiki Kaisha. Apparatus for continuously packing articles into container. 3,530,646, 9-29-70, Cl. 53-236.

Amadon, Roger M., to Pet Incorporated. Microwave apparatus for evaporating liquid mixtures. 3,495,648, 2-17-70, Cl. 159-3.

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Amakasu, Osamu: *See—*
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Amann, August: *See—*
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Amano, George Minora, to Sherwin-Williams Company, The. Multilayer coating process. 3,493,418, 2-3-70, Cl. 117-72.

Amano, Hiroyuki; Tsuji, Nobuo; and Shirasu, Kazuo, to Fuji Shashin Film Kabushiki Kaisha. Photographic color elements containing UV absorbers. 3,512,984, 5-19-70, Cl. 96-84.

Amano, Hiroyuki; Tsuji, Nobuo; and Shirasu, Kazuo, to Fuji Shashin Film Kabushiki Kaisha. Photographic color elements containing polymeric UV absorbers. 3,549,374, 12-22-70, Cl. 96-84.

Amano, Hiroyuki: *See—*
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Amano, Kazuhiko: *See—*
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Amano, Kitsutaro: *See—*
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Amano, Kitsutaro; Koseki, Yasuo; Komuro, Keigo; Tanaka, Takao Shinbori, Osamu; and Yamamoto, Takaya, to Kokusai Denshi Denwa Kabushiki Kaisha. Semiconductor laser element which utilizes the polarization of angularly related forward biased junction to perform logical operations. 3,510,799, 5-5-70, Cl. 331-94.5

Oshima, Shintaro; and Amano, Kitsutaro,3,521,252.

Amano, Noboru; and Sasaki, Hirotaka, to Japan Atomic Energy Research Institute, and Matsushita Electric Industrial Co., Ltd. Time analyzers for counting-rate change measurement. 3,518,539, 6-30-70, Cl. 324-77.

Amano, Yasuji; Kumano, Hiroshi; Nishino, Atsushi; and Noguchi, Yoshinori, to Matsushita Electric Industrial Co., Ltd. Process for electrolytic deposition of manganese dioxide. 3,535,217, 10-20-70, Cl. 204-96.

Amano, Yasuji; Ogawa, Hiromichi; Umeo, Yoshiyuki; Ohira, Tsukasa; and Murakami, Kaoru, to Matsushita Electric Industrial Co., Ltd. Rechargeable alkaline manganese cell. 3,530,496, 9-22-70, Cl. 136-30.

Amanrich, Robert; and Cousserans, Gilbert, to Office National Industrial de l'Azote. Production of phosphoric acid. 3,497,329, 2-24-70, Cl. 23-299.

Amans, Robert L., to General Electric Company. Solid state lamp having a len with rhodamine or fluorescent material dispersed therein. 3,510,732, 5-5-70, Cl. 317-234.

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Amarillo Gear Company: *See—*
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Amariti, Lugigi; and Briggs, Hartwell L., to Dietzgen, Eugene, Co. Diazotype photoprinting materials and methods of use. 3,499,760, 3-10-70, Cl. 96-49.

Amass, Peter, to Minnesota Mining and Manufacturing Company. Facsimile system with two speed magnetic storage. 3,510,577, 5-5-70, Cl. 178-6.6

Amass, Peter; and Leeke, Paul, to Minnesota Mining and Manufacturing Company. Facsimile system with magnetic tape storage having selectively synchronized drives. 3,499,978, 3-10-70, Cl. 178-6.6

Amati, Giovanni; Maneschi, Sergio; and Vantini, Nereo, to Centro Sperimentale Metallurgico S.p.A. Method and device for the analysis of hydrogen in steels. 3,520,171, 7-14-70, Cl. 73-23.1

Amato, Carmelo J.; and Christiansen, Paul, to Lear Siegler Inc. Cycloconverter control circuit. 3,493,841, 2-3-70, Cl. 321-18.

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Amberg, Lyle O.; and Willis, William D., to Hercules Incorporated. Elastomeric poly(epihalohydrin) compositions of improved processability. 3,503,910, 3-31-70, Cl. 260-18.

Amberg, Ralph G.: *See—*
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Amberg, Stephen W.; and Amberg, Ralph G., to Owens-Illinois, Inc.; mesne. Method of deep-stretching plastic sheet material to receptacle shape. 3,528,865, 9-15-70, Cl. 156-214.

Amberg, Stephen W.; Burke, Douglas J.; and Nicholas, Nicholas J., to Owens-Illinois, Inc., mesne. Two-piece plastic container and method of making same. 3,547,012, 12-15-70, Cl. 93-36.5

Ambill, Pierre, to Sagita S.A.(Le Gaz Industriel Tagolsheim-Paris). Automatic machine for scalding pork carcasses after bleeding. 3,523,326, 8-11-70, Cl. 17-15.

Ambler, Edward Curtis; and Conlon, William J., to Stanley Works, The. Commutator lead mounting. 3,519,863, 7-7-70, Cl. 310-234.

Ambli, Andrew. Apparatus for removing contaminated air and exhaust fumes from a garage. 3,492,937, 2-3-70, Cl. 98-43.

Ambrico, Louis E., to International Business Machines Corporation. Pulse crowding compensation for magnetic recording. 3,503,059, 3-24-70, Cl. 340-174.1

Ambrico, Louis E.; and Fiorino, Benjamin C., to International Business Machines Corporation. Binary data detection system. 3,506,923, 4-14-70, Cl. 329-104.

Ambros, Richard. Device for transmission of a turning moment or torque from a driving part to a driven part. 3,491,610, 1-27-70, Cl. 74-230.17

Ambros, Richard; and Ettinger, Hermann, to Zippe Werk G.m.b.H. Slide-fastener slider with locking pawl. 3,522,638, 8-4-70, Cl. 24-205.14

Ambrose, Edward B. Watering device for Xmas trees. 3,505,760, 4-14-70, Cl. 47-38.

Ambrose, Henry. Back supports. 3,542,421, 11-24-70, Cl. 297-230.

Ambrose, Jere B., to Northern Fibre Products Company. Seaming lace assembly filler and method of forming same. 3,531,366, 9-29-70, Cl. 161-89.

Ambrose, John J., to Westinghouse Electric Corporation. Tandem vending machine. 3,547,312, 12-15-70, Cl. 221-67.

Ambrose, John J., to Westinghouse Electric Corporation. Vending machine interlock mechanism. 3,550,810, 12-29-70, Cl. 221-125.

Ambrose, John, to Dunlop Company Limited, The. Hose. 3,548,884, 12-22-70, Cl. 138-144.

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Ambrosia, Alphonse; and Dahms, Harald, to International Business Machines Corporation. Nickel-iron electrolytes containing hydrolyzing metal ions and process of electro-depositing ferromagnetic films. 3,506,547, 4-14-70, Cl. 204-43.

Ambrosini, Leonard R., to Lear Siegler, Inc. Weapon system with an electronic time fuze. 3,500,746, 3-17-70, Cl. 102-70.2

Ambrosini, Leonard R., to Lear Siegler, Inc. Meridian-seeking instrument. 3,512,264, 5-19-70, Cl. 33-226.

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Amdur, Nicholas J.: *See—*
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Ameau, Albert, to C.I.T.-Compagnie Industrielle des Telecommunications. Sinewave synthesizer for telegraph system. 3,500,213, 3-10-70, Cl. 328-14.

Ameau, Albert; and Bizet, Pierre, to C.I.T.-Compagnie Industrielle des Telecommunications. Remotely controllable telegraphic system. 3,511,923, 5-12-70, Cl. 178-4.1

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Amelchenko, Alexei Semenovich; Muzyka, Jury Lukich; Amelichev, Nikolai Zakharovich; and Myadzel, Vladimir Petrovich. Device for cutting helical groove on metallized resistors. 3,548,544, 12-22-70, Cl. 51-50.

Amelichev, Nikolai Zakharovich: *See—*
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Amelio, Armand F., to United Aircraft Corporation. Remotely controlled rotary input signal means for introducing trim control signal corrections to jet engine fuel controls. 3,521,448, 7-21-70, Cl. 60-39.28

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Amemiya, Kunio: *See—*
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Amendola, Michael R., to Hays Manufacturing Company. Valve with soluble closure member. 3,496,952, 2-24-70, Cl. 137-67.

Amengual, Jean; and Lang, Georges. Looms. 3,494,384, 2-10-70, Cl. 139-125.

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Andersen, Ronald E.; Dorumsgaard, John A.; and Swanson, Loren E., to Central Engineering Company. Spring-biased locking mechanism with hydraulic release. 3,528,141, 9-15-70, Cl. 24-211.

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Anderson, Charles F. Foldable barricade and display holder especially for highway use. 3,490,749, 1-20-70, Cl. 256-64.

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Anderson, Clarence A.; and Charneski, Mitchell D., to Detroit Edison Company, The. Smokeless-odorless electric incinerator. 3,548,762, 12-22-70, Cl. 110-18.

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Anderson, Dean B., to North American Rockwell Corporation. Optical parametric device. 3,537,020, 10-27-70, Cl. 330-4.5

Anderson, Don R. Braking signal light for automotive vehicles. 3,491,336, 1-20-70, Cl. 340-84.

Anderson, Donald C., to Hexcel Corporation. Method of heat curing and pressing blocks of honeycomb. 3,547,727, 12-15-70, Cl. 156-291.

Anderson, Donald E.; and Peria, William T., to University of Minnesota, The Regents of the. Vacuum deposition apparatus including a programmed mask means having a closed feedback control system. 3,494,853, 2-10-70, Cl. 204-298.

Anderson, Donald J., to Chevron Research Company. Amino substituted lower alkyl polyisobutenyl sulfides, sulfoxides and sulfones. 3,494,963, 2-10-70, Cl. 260-583.

Anderson, Donald J., to Chevron Research Company. 3 and/or 5 Alkyl mono and bis-pyrrolidones wherein at least one alkyl group is of at least 10 carbon atoms. 3,520,902, 7-21-70, Cl. 260-326.3

Anderson, Donald J., to Chevron Research Company. Thio compounds additives in fluids used in engines. 3,546,117, 12-8-70, Cl. 252-47.5

Anderson, Doreen. Manufacture of sculptures. 3,537,930, 11-3-70, Cl. 156-214.

Anderson, Dorrance L.; Willis, Albert E.; Winkler, Carl E.; and Gould, John M., to United States of America, National Aeronautics and Space Administration. Static inverters which sum a plurality of waves. 3,521,143, 7-21-70, Cl. 321-5.

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Anderson, Dwight Dean. Fish holding rack. 3,518,719, 7-7-70, Cl. 17-70.

Anderson, Earl R.; and Keesling, Clifford E., to Brex Corporation, mesne. Pocket discharge article by article feed. 3,509,983, 5-5-70, Cl. 198-26.

Anderson, Edward A.; and Kilboy, Lambert J., to United States Steel Corporation. Sintering method. 3,489,550, 1-13-70, Cl. 75-5.

Anderson, Edward P., to Engelhard Minerals & Chemicals Corporation. Anode for cathodic protection of tubular members. 3,527,685, 9-8-70, Cl. 204-196.

Anderson, Edward P., to Engelhard Minerals & Chemicals Corporation. Apparatus for producing and dispensing sodium hypochlorite. 3,544,442, 12-1-70, Cl. 204-275.

Anderson, Edward William, to Smiths Industries Limited. Navigation apparatus. 3,541,853, 11-24-70, Cl. 73-178.

Anderson, Edwin A. Method and arrangement for selectively controlling fluid discharge from a drill bit on the lower end of a drill string. 3,488,765, 1-6-70, Cl. 175-61.

Anderson, Edwin J. Lathe carriage stop. 3,545,320, 12-8-70, Cl. 82-34.

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Anderson, Emmett R., to Air Reduction Company, Incorporated. Power supply. 3,544,913, 12-1-70, Cl. 328-267.

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Anderson, Eugene A.; and Peppers, Leonard G., to Southern Saw Service. Blade orienting attachment for grinding wheels. 3,501,871, 3-24-70, Cl. 51-238.

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Michie, Jarvis D.; Rastrelli, Leonard U.; and Anderson, Eugene L.,3,496,633.

Anderson, Evans W., to Keystone Consolidated Industries, Inc. Press safety device. 3,541,950, 11-24-70, Cl. 100-53.

Anderson, Frank R.: *See*—
Robinson, Joseph G. S.; and Anderson, Frank R.,3,526,159.

Anderson, Franklin T., to Co-Operative Industries, Inc. Socket contact for electrical connectors. 3,504,331, 3-31-70, Cl. 339-256.

Anderson, Fred N.: *See*—
Cherry, Walter L.; Castle, Raymond G.; and Anderson, Fred N.,3,493,706.

Anderson, Fred N., to Cherry Electrical Products Corporation. Switch actuator. 3,492,882, 2-3-70, Cl. 74-100.

Anderson, G. Charles; Mc Daniel Edgar L.; and Young, Howard S., to Eastman Kodak Company. Process for preparing acrylic acid and methacrylic acid. 3,544,624, 12-1-70, Cl. 260-530.

Anderson, Gary E.: *See*—
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Anderson, Gene W.: *See*—
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Anderson, George A.: *See*—
Blanchard, John H.; and Anderson, George A.,3,508,606.

Anderson, George B., to Farrel Corporation. Tool block. 3,545,318, 12-8-70, Cl. 82-36.

Anderson, George B.; and Young, Frederic William, to USM Corporation. Tool block. 3,545,319, 12-8-70, Cl. 82-36.

Anderson, George C.; Young, Howard S.; and McDaniel, Edgar L., to Eastman Kodak Company. Manufacture of acrylonitrile. 3,532,734, 10-6-70, Cl. 260-465.3

Anderson, George C.: *See*—
Young, Howard S.; Anderson, George C.; and McDaniel, Edgar L.,3,546,139.

Anderson, George E., to RCA Corporation. Brightness control circuit. 3,502,807, 3-24-70, Cl. 178-7.3

Anderson, George E.; and Pratt, John N., to RCA Corporation. Noise immune video circuits. 3,535,444, 10-20-70, Cl. 178-7.3

Anderson, George J.; and Dahms, Ronald H., to Monsanto Company. Laminates of phenolic resin impregnated cellulosic substrates. 3,537,951, 11-3-70, Cl. 161-259.

Anderson, George J.; and Dahms, Ronald H., to Monsanto Company. Resole varnish mixture. 3,549,576, 12-22-70, Cl. 260-29.3

Anderson, George W.: *See*—
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Anderson, Gerald L., to Dresser Industries, Inc. Insulating pipe union. 3,517,950, 6-30-70, Cl. 285-52.

Anderson, Gerald R., to FMC Corporation. Fruit stem end cutter. 3,536,114, 10-27-70, Cl. 146-81.

Anderson, Gerald S.: *See*—
Wehner, Gottfried K.; and Anderson, Gerald S.,3,501,393.

Anderson, Glenn A., to Avco Corporation. Composite superconductive conductor. 3,504,314, 3-31-70, Cl. 335-216.

Anderson, Gordon L., to Flexa-Hopper (1968) Ltd. Auger system for dump boxes. 3,532,237, 10-6-70, Cl. 214-519.

Anderson, Gordon L., to Flexa-Hopper (1968) Ltd. Dump box. 3,532,382, 10-6-70, Cl. 298-26.

Anderson, Gordon, to Intong Aktiebolag. Sand-lime bricks and method of making. 3,535,135, 10-20-70, Cl. 106-63.

Anderson, Greenwood & Co.: *See*—
Powell, Walter W., 3,534,768.
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Weise, Irvin B., 3,512,753.
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Anderson, Harold Elden: *See*—
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Anderson, Harold G., to General Electric Company. Steam making machine for electric lamps and similar devices. 3,488,176, 1-6-70, Cl. 65-138.

Anderson, Harold P. Multiple layer paper test strip. 3,511,608, 5-12-70, Cl. 23-253.

Anderson, Harold P.; Flavin, Michael A.; Grandmaison, John P.; Saltus, George E.; and Simon, James L., to Bell Telephone Laboratories, Incorporated. Electronic key telephone system. 3,519,757, 7-7-70, Cl. 179-18.

Anderson, Hilding A., to SCM Corporation. Drive means for recorder. 3,505,889, 4-14-70, Cl. 74-125.5

Anderson, Hilding A., to SCM Corporation. Print hammer module apparatus. 3,507,214, 4-21-70, Cl. 101-93.

Anderson, Howard A., to Bissell Inc. Mop with pad securing means. 3,528,076, 9-8-70, Cl. 15-228.

Anderson, Howard A. Reinforced architectural shapes. 3,538,668, 11-10-70, Cl. 52-615.

Anderson, Hubert M., Jr., to International Telephone and Telegraph Corporation. Crossbar switching system having split group hunting. 3,536,844, 10-27-70, Cl. 179-18.

Anderson, Ingvar; and Brown, Victor, to Metropolitan Waste Conversion Corporation. Refuse handling system. 3,524,594, 8-18-70, Cl. 241-19.

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Anderson, James A., to Breneman, Inc. Lengthwise-adjustable shade roller. 3,521,694, 7-28-70, Cl. 160-323.

Anderson, James D., to Armour and Company. Hide removal apparatus. 3,545,037, 12-8-70, Cl. 17-21.

Anderson, James E.; and Izdebski, Simon S., to Jackson Vibrators, Inc. On track-off track tamper. 3,494,300, 2-10-70, Cl. 104-12.

Anderson, James H. Flexible couplings and hub mountings. 3,500,660, 3-17-70, Cl. 64-13.

Anderson, James H. Heat pump. 3,519,066, 7-7-70, Cl. 165-29.

Anderson, James H. Pipe bender. 3,533,266, 10-13-70, Cl. 72-298.

Anderson, James H. Boilers for power plants. 3,533,377, 10-13-70, Cl. 122-35.

Anderson, James H. Suspended submarine pipe construction. 3,538,955, 11-10-70, Cl. 138-103.

Anderson, James J., to Mobil Oil Corporation. Polymers and process for making same. 3,509,076, 4-28-70, Cl. 260-2.5

Anderson, James Orville; Coleman, Donald D.; and Thornton, Brice E., to North American Rockwell Corporation. Radar system having improved response to small targets. 3,500,404, 3-10-70, Cl. 343-17.1

Anderson, James R.: *See*—
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Anderson, John C.; and Skinner, Robert L., to Engineering Technology, Inc. Dwell clutch for filament winding apparatus. 3,520,494, 7-14-70, Cl. 242-158.

Anderson, John E.; and Jackson, John E., to Union Carbide Corporation. Method and apparatus for producing continuous wave laser energy. 3,548,336, 12-15-70, Cl. 331-94.5

Anderson, John E.; Parish, Clyde E.; and Ross, George H., to Signal Oil and Gas Company. Amino thiocarbonate adducts and method of making same. 3,502,706, 3-24-70, Cl. 260-455.

Anderson, John E.: *See*—
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Anderson, John M., to General Electric Company. Electrodeless gaseous electric discharge devices utilizing ferrite cores. 3,500,118, 3-10-70, Cl. 315-57.

Anderson, John M., to General Electric Company. High frequency electrodeless fluorescent lamp assembly. 3,521,120, 7-21-70, Cl. 315-57.

Anderson, John P., to International Business Machines Corporation. Electro-optic array and method of making same. 3,540,427, 11-17-70, Cl. 125-21.

Anderson, John P.; and Orme, Myrl E., to Bendix Corporation, The. Overtravel mechanism. 3,505,887, 4-14-70, Cl. 74-89.

Anderson, John Ramsay, to Imperial Chemical Industries Limited. Fertiliser compositions. 3,515,532, 6-2-70, Cl. 71-28.

Anderson, John R.; and Somekh, George S., to Union Carbide Corporation. Separation of aromatic hydrocarbons from nonaromatic hydrocarbons. 3,492,365, 1-27-70, Cl. 260-674.

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Anderson, John W. Electrically insulative thimble with confined viscous bonding medium. 3,550,765, 12-29-70, Cl. 206-46.

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Anderson, Kathryn E.: *See*—
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Anderson, Kelvin Gordon, to Weldotron Corporation. Heat sealing means. 3,496,049, 2-17-70, Cl. 156-497.

Anderson, Kenneth G.; Anderson, James R.; and Hatcher, John B., to Research Instruments & Controls, Inc., mesne. Surveillance equipment and system. 3,517,316, 6-23-70, Cl. 325-113.

Anderson, Kenneth W. Golf practice mat. 3,542,369, 11-24-70, Cl. 273-186.

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Anderson, Lawrence K.; and Devlin, Shaun S., to Bell Telephone Laboratories, Incorporated. Ultrasonic digital light deflector. 3,507,553, 4-21-70, Cl. 350-161.

Anderson, Le Roy M.; Anderson, Lawrence G.; and Peterson, Carl H., to TRW Inc. Bearing seal. 3,494,681, 2-10-70, Cl. 308-187.1

Anderson, Leeming. Kiln for heat treatment of articles on a continuous basis. 3,545,733, 12-8-70, Cl. 263-28.

Anderson, Leonard H.: *See*—
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Anderson, Lester F.; and Bader, Paul, to Sylvania Electric Products, Inc. Photoflash lamp. 3,535,064, 10-20-70, Cl. 431-93.

Anderson, Lester F.; Bennett, Sedgwick R.; and Shaffer, John W., to Sylvania Electric Products, Inc. Photoflash lamp. 3,535,063, 10-20-70, Cl. 431-93.

Anderson, Lewis G.; and Thomson, David J., to Bell Telephone Laboratories, Incorporated. Electrically responsive fluid logic system and method of assembly. 3,548,857, 12-22-70, Cl. 137-251.

Anderson, Loren L. Heating device for maintaining an open hole in ice. 3,507,268, 4-21-70, Cl. 126-271.3

Anderson, Lorrin O.; Jorgenson, Arnold J.; and Vigil, Jacob F., to Burroughs Corporation. Data storage timing system. 3,537,075, 10-27-70, Cl. 340-172.5

Anderson, Lucia E.: *See*—
French, James C.; Howells, John D.; and Anderson, Lucia E.,3,551,294.

Anderson Machine & Tool Works, Inc.: *See*—
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Anderson, Marion M.: *See*—
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Anderson, Maynard E., to Alyn-Dale, Inc. Keyboard. 3,489,342, 1-13-70, Cl. 235-145.

Anderson, Maynard E., to Alyn-Dale, Inc. Calculator. 3,526,355, 9-1-70, Cl. 235-59.

Anderson, Melvin D. Animal trap. 3,529,377, 9-22-70, Cl. 43-91.

Anderson, Murray B.: *See*—
Masefield, John; Rice, Frank Graham; Anderson, Murray B.; and Curnow, Eric K.,3,532,888.

Anderson, Noel M. Yard hydrant valve. 3,523,549, 8-11-70, Cl. 137-288.

Anderson, Norman G., to United States of America, Atomic Energy Commission. Method of centrifugal separation and recovery of chemical species utilizing a liquid medium. 3,519,400, 7-7-70, Cl. 23-309.

Anderson, Norman G., to United States of America, Atomic Energy Commission. Method for measurement and transfer of small fluid volumes. 3,536,106, 10-27-70, Cl. 141-1.

Anderson, Norman G., to United States of America, Atomic Energy Commission. Analytical photometer with means for measuring, holding and transferring discrete liquid volumes and method of use thereof. 3,547,547, 12-15-70, Cl. 356-197.

Anderson, Norman G.; and Nunley, Clifford E., to United States of America, Atomic Energy Commission. Zonal centrifuge. 3,536,253, 10-27-70, Cl. 233-33.

Anderson, Norman J., to Zurn Industries, Inc. Limit switch actuating cylinder. 3,513,955, 5-26-70, Cl. 192-86.

Anderson, Norman L.; Austin, Howard B.; Oldenburg, Dorrance; Staab, Jacob E.; and Stedman, Robert N., to Caterpillar Tractor Company. Bucket attachment for wheel loaders. 3,526,329, 9-1-70, Cl. 214-140.

Anderson, Norman L.: *See*—
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Anderson, Olof Verner, to Anson, Inc. Bracelet with clasp to adjust the length thereof. 3,531,948, 10-6-70, Cl. 63-5.

Anderson, Orin M. Top door mechanism for top loading refuse vehicle. 3,514,902, 6-2-70, Cl. 49-213.

Anderson, Otis F. Chucking fixture assembly. 3,537,714, 11-3-70, Cl. 279-6.

Anderson, Paul E.; and Culbertson, Glenn A., to Sylvania Electric Products, Inc. Fluorescent lamp holder and clip. 3,489,890, 1-13-70, Cl. 240-51.11

Anderson, Paul L.; Randall, Benjamin J.; and Iosue, Michael F., to Rogers Corporation. Multilayer electrical conductor assembly. 3,504,103, 3-31-70, Cl. 174-117.

Anderson, Paul S.: *See*—
Robinson, Franklin M.; Anderson, Paul S.; and Nicholson, James A.,3,499,906.
Robinson, Franklin M.; Anderson, Paul S.; and Nicholson, James A.,3,513,169.
Robinson, Franklin M.; Anderson, Paul S.; and Nicholson, James A.,3,514,463.

Anderson, Paul Z., to American Pipe and Construction Co. Tundish cleaning and preheating apparatus. 3,491,988, 1-27-70, Cl. 263-2.

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Anderson, Per Lennart. Metronome with accentuated beats. 3,534,649, 10-20-70, Cl. 84-484.

Anderson, Perry W.: *See*—
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Anderson, Perry; Richter, Walther; and Kleinke, Donald F., to Dittmore-Freimuth Corporation. Constant delivery pump. 3,551,077, 12-29-70, Cl. 417-415.

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Anderson, Ralph A.: *See*—
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Anderson, Ralph F., to Keystone Consolidated Industries, Inc. Flush safety latch. 3,549,184, 12-22-70, Cl. 292-195.

Anderson, Ralph F.; and Henson, Richard C., to Keystone Consolidated Industries, Inc. Locking means for chair controls. 3,545,810, 12-8-70, Cl. 297-373.

Anderson, Raymond H.; and Appeldorn, Roger H., to Minnesota Mining and Manufacturing Company. Flare control shield for an overhead projector. 3,536,391, 10-27-70, Cl. 353-98.

Anderson, Raymond P.: *See*—
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Anderson, Richard C., to General Electric Company. Transparent yttria-based ceramics and method for producing same. 3,545,987, 12-8-70, Cl. 106-39.

Anderson, Richard C.; and Curran, Matthew J., to General Electric Company. Image orthicon target assembly and sealing glass composition therefor. 3,534,209, 10-13-70, Cl. 313-89.

Anderson, Richard D., to Kimberly-Clark Corporation. Transfer apparatus for elongated pads and the like. 3,533,519, 10-13-70, Cl. 198-20.

Anderson, Richard John, to Bendix Corporation, The. Quadrature rejection network. 3,532,898, 10-6-70, Cl. 307-232.

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Anderson, Richard W., to Dow Chemical Company, The. Process for the preparation of perhaloalkoxy-s- triazines and novel perfluoroalkoxy-s-triazines. 3,525,745, 8-25-70, Cl. 260-248.

Anderson, Robert E., to Mueller Color Plate Company. Method of making electrotype printing plates. 3,526,190, 9-1-70, Cl. 101-401.1

Anderson, Robert E.; Dolby, Patrick W.; and Bohnenblust, Clarence E., to Tel-Design, Inc. Telephone cable fault locator employing first and second potential means to create a sustained arcing action. 3,488,580, 1-6-70, Cl. 324-52.

Anderson, Robert F. Practice putting device. 3,512,783, 5-19-70, Cl. 273-177.

Anderson, Robert F. Golf ball retriever. 3,520,569, 7-14-70, Cl. 294-19.

Anderson, Robert F. Bowling ball stand. 3,525,440, 8-25-70, Cl. 211-14.

Anderson, Robert F.; and Vesely, Kenneth D., to Universal Oil Products Company. Catalyst manufacture. 3,496,116, 2-17-70, Cl. 252-453.

Anderson, Robert F.: *See*—
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Reuteler, Johann F.; and Anderson, Robert F.,3,539,896.

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Anderson, Robert I.: *See*—
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Anderson, Robert I.; Russell, Jack A.; and Baldwin, Bradford J., to Brunswick Corporation. Golf green. 3,522,947, 8-4-70, Cl. 273-176.
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Anderson, Robert K., to Medtronic, Inc. Cardiac pacemaker with regulated power supply. 3,547,127, 12-15-70, Cl. 128-421.

Anderson, Robert Leo. Impression gun. 3,530,587, 9-29-70, Cl. 32-60.

Anderson, Robert L., to United States of America, Atomic Energy Commission. Nonboiling liquid target for a high-energy particle beam. 3,525,228, 8-25-70, Cl. 62-54.

Anderson, Robert L.; and Levy, Avner M., to Ampex Corporation. Raised circular segment contoured magnetic head assembly. 3,526,885, 9-1-70, Cl. 340-174.1

Anderson, Robert M. Extracorporeal heart. 3,518,033, 6-30-70, Cl. 417-478.

Anderson, Robert R.; Anderson, Joseph A.; and Neukom, Chester, to J&J Manufacturing, Incorporated. Hay and grain combination mill. 3,547,358, 12-15-70, Cl. 241-44.

Anderson, Robert V., to Anderson Service Company. Refrigeration apparatus and method having control for refrigeration effect and condenser heat rejection. 3,500,653, 3-17-70, Cl. 62-117.

Anderson, Robert W.; and Perreault, Aime Joseph, to Haveg Industries, Inc. Bonding of insulated wires to form electrical cables. 3,537,927, 11-3-70, Cl. 156-47.

Anderson, Robert, to Eadie Bros. & Company Limited. Tools or devices for applying travellers to the rings of ring spinning or twisting machines. 3,490,127, 1-20-70, Cl. 29-207.

Anderson, Rodney H.: *See*—
Allen, Andrew J.; Anderson, Rodney H.; Campbell, Trevor G.; and Lee, Emil B., Jr.,3,539,069.

Anderson, Rodney H.; and Salzman, Fred J., to Caterpillar Tractor Company. Ejector for loader bucket. 3,523,621, 8-11-70, Cl. 214-146.

Anderson, Roger C. Mining apparatus. 3,492,048, 1-27-70, Cl. 299-71.

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Anderson, Ronald L.: *See*—
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Anderson, Roy A.: *See*—
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Anderson, Roy E., to General Electric Company. Radio frequency holograms. 3,488,656, 1-6-70, Cl. 343-17.

Anderson, Roy E., to General Electric Company. Limited energy speech transmission and receiving system. 3,528,011, 9-8-70, Cl. 325-38.

Anderson, Roy H. Saw chain. 3,543,817, 12-1-70, Cl. 143-135.

Anderson, Roy J. Drafting board with sheet feed control. 3,510,081, 5-5-70, Cl. 242-67.1

Anderson, Roy J. Drawing board and T-square. 3,537,183, 11-3-70, Cl. 33-76.

Anderson Service Company: *See*—
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Anderson, Stanley E.; and Thompson, Bernard L., to United States of America, Army. Method for molding insulation materials. 3,541,195, 11-17-70, Cl. 264-94.

Anderson, Sven Ingemar, to AB Akerlund & Rausing. Containers and methods for their manufacture. 3,547,722, 12-15-70, Cl. 156-196.

Anderson, Sylvester L. Resilient foundation for concrete. 3,545,348, 12-8-70, Cl. 94-10.

Anderson, Tage O.: *See*—
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United States of America,National Aeronautics and Space Administration, Administrator, 3,551,816.
United States of America,National Aeronautics and Space Administration, Administrator, 3,533,074.
United States of America,National Aeronautics and Space Administration, Administrator, 3,501,750.

Anderson, Theodore C.; and Ingle, James F., to Bell Telephone Laboratories, Incorporated. Signal reflection type fault location system utilizing a low frequency test signal with test signal cancellation in signal display apparatus. 3,517,306, 6-23-70, Cl. 324-52.

Anderson, Thomas W.: *See*—
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Anderson, Torsten; and Carlsson, Herbert, to Aktiebolaget Overumes Bruk. Plough arrangement. 3,539,020, 11-10-70, Cl. 172-740.

Anderson, Victor C.; and Horn, Ronald C., to United States of America, Navy, mesne. Tensor arm manipulator. 3,497,083, 2-24-70, Cl. 214-1.

Anderson, Victor F.; and Atwood, David P., to Shell Oil Company. Two part fastening means for animal collars. 3,501,814, 3-24-70, Cl. 24-16.

Anderson, Viletta O.; Anderson, Kathryn E.; and Anderson, Marion M. Game of show ring competition. 3,531,121, 9-29-70, Cl. 273-134.

Anderson, Vincent H.; and Bonvalot, Pierre C., to Bliss, E. W., Company. Slide counterbalance. 3,492,939, 2-3-70, Cl. 100-214.

Anderson, Walter J.; and Kniepkamp, Alberto E., to Chicago Musical Instrument Company. Photoresistor swell control for a musical instrument. 3,513,247, 5-19-70, Cl. 84-1.18

Anderson, Walter M., Jr., to Texas Instruments, Incorporated. Apparatus for protecting a D.C. load. 3,517,264, 6-23-70, Cl. 317-23.

Anderson, Wayne A.: *See*—
Anton, John R.; Parry, Sidney J. S.; and Anderson, Wayne A.,3,489,668.

Anderson, Weston A., to Varian Associates. Apparatus for controlling magnetic fields. 3,488,561, 1-6-70, Cl. 317-123.

Anderson, Wilbur Glenn, to Packaging Corporation of America. Container and blank therefor. 3,512,695, 5-19-70, Cl. 229-16.

Anderson, William A.; and McBride, John K., to Aluminum Company of America. Aluminum alloy sheet. 3,502,448, 3-24-70, Cl. 29-183.5

Anderson, William A.: *See—*
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Anderson, William C.: *See—*
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Anderson, William L., Jr.: *See—*
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Anderson, William P., to Bell Aerospace Corporation. Aircraft supporting device. 3,506,222, 4-14-70, Cl. 244-101.

Anderson, William W.; and Fields, Alan S., to United States of America, Navy. Feedback system for automatic range compensation of a transducer. 3,532,971, 10-6-70, Cl. 324-43.

Anderson, Willis H.; Hyden, Daniel W.; and Frier, Frank, to General Motors Corporation. Combined pivotal and linear switch actuator. 3,524,952, 8-18-70, Cl. 200-6.

Anderson, Wilmer C.; and Altman, Louis, to General Time Corporation. Clock face assembly having illuminated indicating elements. 3,490,226, 1-20-70, Cl. 58-50.

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Andersson, Anders Sigvard, to Aktiebolaget Svenska Metallverken. Expansible mandrel. 3,507,455, 4-21-70, Cl. 242-72.1

Andersson, Bert Olof Torsten; Kilander, Sven Gustav Ingemar; and Olsson, Per-Olof, to Telefonaktiebolaget L M Ericsson. Automatic interception and transfer of calls. 3,521,003, 7-21-70, Cl. 179-18.

Andersson, Bror Axel Erling; and Andersson, Erik Arne, Mouth cover. 3,500,825, 3-17-70, Cl. 128-139.

Andersson, Erik Arne Alvar, to Munksjo Aktiebolag. Device for fixing the terminating end of paper rolls. 3,505,150, 4-7-70, Cl. 156-446.

Andersson, Erik Arne: *See—*
Andersson, Bror Axel Erling; and Andersson, Erik Arne,3,500,825.

Andersson, Gustaf Verner, to AB Hagglund & Soner. Transport vehicle for heavy loads. 3,520,429, 7-14-70, Cl. 214-314.

Andersson, Gustav Bertil. Label dispensers. 3,487,977, 1-6-70, Cl. 221-73.

Andersson, Gustav Sigfrid. Method and apparatus for fastening a tube into a tube gable. 3,541,658, 11-24-70, Cl. 29-157.4

Andersson, Herbert, to Consolidated Burris International, Ltd., mesne. Tiltable chair construction. 3,544,159, 12-1-70, Cl. 297-303.

Andersson, Ingemar R.: *See—*
Bauman, Jack L.; Boetto, Charles; Andersson, Ingemar R.; and Gesior, Augustyn M.,3,492,021.

Andersson, Ingvar John Rune. Road marker. 3,502,007, 3-24-70, Cl. 94-1.5

Andersson, Karl Erik Evald. Building of prefabricated sections. 3,500,596, 3-17-70, Cl. 52-79.

Andersson, Karl-Erik; and Wallberg, Erik Wilhelm, to Forsvarets Fabriksverk. Lever-controlled fuse for hand grenades. 3,498,223, 3-3-70, Cl. 102-64.

Andersson, Karl Olof Natanael; and Holmgren, Stig. Finishing mortar. 3,498,809, 3-3-70, Cl. 106-115.

Andersson, Karl Osten Ingvar: *See—*
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Andersson, Karl-Erik: *See—*
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Andersson, Kawe K. G.: *See—*
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Andersson, Knut Johan Eugen, to AB Rostfria Infredningar. Rotary cleaning apparatus. 3,496,860, 2-24-70, Cl. 99-234.

Andersson, Leif Walter; Hollstrom, Stig Roland; and Sjostrom, Lars Werner, to Telefonaktiebolaget L M Ericsson. Circuit arrangement for automatic measuring of pulse amplitudes. 3,510,688, 5-5-70, Cl. 307-235.

Andersson, Lennart, to Aktiebolaget Stra Kalkbruk. Binding agent. 3,488,203, 1-6-70, Cl. 106-117.

Andersson, Nils Eric; and Lilja, Goran, to Allmanna Svenska Elektriska Aktiebolaget. Semi-conductor device having means pressing a connector into contact with a semi-conductor disc. 3,512,053, 5-12-70, Cl. 317-234.

Andersson, Nils Eric; and Lilja, Goran, to Allmanna Svenska Elektriska Aktiebolaget. Semi-conductor device. 3,513,360, 5-19-70, Cl. 317-234.

Andersson, Nils, to AB Akerlund & Rausing. Method of coating sheets of carton or similar material with a plastic coating. 3,514,354, 5-26-70, Cl. 156-244.

Andersson, Sven-Erik Lennart, to SAAB Aktiebolag. Apparatus for X-raying on two mutually perpendicular axes with a pair of X-ray sources. 3,549,885, 12-22-70, Cl. 250-61.5

Andersson, Sven Ingemar, to AB Akerlund & Rausing. Containers. 3,489,331, 1-13-70, Cl. 229-14.

Anderton, Catherine Margaret; Fishwick, Brian Ribbons; and Lawson, John, to Imperial Chemical Industries Limited. Non-oxo-carbonylic containing, phenyl- azo-phenyl dyestuffs. 3,544,550, 12-1-70, Cl. 260-207.1

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Andis, Ernest R. Deposit receptacle for newspapers or the like. 3,516,600, 6-23-70, Cl. 232-17.

Andis, Ernest R. Golf club having an adjustable length shaft. 3,539,185, 11-10-70, Cl. 273-81.2

Ando, Akio: *See—*
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Ando, Fumio, to Nippon Electric Company Limited. Television camera pick-up equipment. 3,495,035, 2-10-70, Cl. 178-7.2

Ando, Kyoshi: *See—*
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Ando, Mao, to Chisso Corporation. Heat-generating pipe utilizing skin effect of A.C. having improved insulation in conductor line. 3,524,966, 8-18-70, Cl. 219-300.

Ando, Masao: *See—*
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Ando, Masao, to Chisso Corporation. Heat generating pipe. 3,515,837, 6-2-70, Cl. 219-10.49

Ando, Masao, to Chisso Corporation. Method for supplying electricity to a heat-generating pipe utilizing skin effect of A.C.. 3,522,440, 8-4-70, Cl. 307-38.

Ando, Masao, to Chisso Corporation. Method for feeding electric power to heat generating bodies of a plurality of sections. 3,523,177, 8-4-70, Cl. 219-300.

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Ando, Ryo; Shimotsuma, Teruo; Fukushima, Tsutomu; and Kunioka, Kazuo. Radiation on-type heating furnace with atmosphere regulation. 3,542,349, 11-24-70, Cl. 263-40.

Ando, Satoshi; Kinoshita, Tetsuo; and Ito, Takashi, to Kanegafuchi Boseki Kabushiki Kaisha. Copolyester filaments containing minor amount of polyolefins. 3,534,120, 10-13-70, Cl. 260-873.

Ando, Satoshi; Uraya, Toru; and Nagata, Koetsu, to Kanegafuchi Boseki Kabushiki Kaisha, and Snia Viscosa Societa Nazionale Industria Applicazioni Viscosa S.p.A. Snythetic fiber having silk-like surface luster and light transparency. 3,551,279, 12-29-70, Cl. 161-174.

Ando, Satoshi: *See—*
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Ando, Shigeru; Taniguchi, Ichiro; and Miyazawa, Takayuki, to Mitsubishi Denki Kabushiki Kaisha. Contactless probe system. 3,506,839, 4-14-70, Cl. 250-222.

Ando, Sohachi; and Fukushima, Yoko, to Chugai Seiyaku Kabushiki Kaisha. Colorimetric method for the quantitative determination of oxalacetic acid. 3,490,874, 1-20-70, Cl. 23-230.

Ando, Sumio: *See—*
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Ando, Sumitoshi: *See—*
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Andolsek, Rudolph A., to Diagraph Bradley Industries, Inc. Stencil cutting apparatus. 3,528,335, 9-15-70, Cl. 83-416.

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Andrasfay, Anthony L., to Beckman Instruments, Inc. Terminal construction for electrical circuit device. 3,496,283, 2-17-70, Cl. 174-68.5

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Andre, Edmond. Device for clamping articles to be machined. 3,516,680, 6-23-70, Cl. 279-4.

Andre, Eugene B., to Ampeg Co., Inc., The. Electronically simulated tape echo system. 3,530,249, 9-22-70, Cl. 179-1.

Andre, Herbert; and Cast, Adolf, to Reich, Karl M., Maschinenfabrik. Nail selecting and feeding mechanism for nailing apparatus. 3,516,574, 6-23-70, Cl. 221-278.

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Andre Rubber Company Limited: *See—*
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Andre, Stephen N.; and Davis, Edison M., to Sylvania Electric Products, Inc. Printed circuit spiral antenna having amplifier and bias feed circuits integrated therein. 3,509,465, 4-28-70, Cl. 325-373.

Andre, Stephen N.; De Lisle, William E.; and Hettich, Ronald D., to Sylvania Electric Products, Inc. Digital function synthesizer. 3,529,138, 9-15-70, Cl. 235-150.53

Andrea, John J.; DeBloois, Roger C.; and Hogue, Noel E., to Collins Radio Company. Phase locked loop with digital capacitor and varactor tuned oscillator. 3,538,450, 11-3-70, Cl. 331-10.

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Andreaggi, Joseph R., to Weston Instruments, Inc. Moving coil instrument having a magnetic detent mechanism. 3,530,380, 9-22-70, Cl. 324-132.

Andreas, Astrid. Instant elastic facelift device. 3,540,440, 11-17-70, Cl. 128-76.

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Andreoli, Gianni, to Spray-Boy GmbH, mesne. Attachable spray can actuation mechanism. 3,501,066, 3-17-70, Cl. 222-402.13

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Andres, Rudolf, to Daimler-Benz Aktiengesellschaft. Double-acting pneumatic servo-motor, especially adjusting motor for flaps or other reciprocating structural parts in motor vehicles. 3,498,189, 3-3-70, Cl. 92-98.

Andres, William W.: *See—*
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Andresen, Egon, to Licentia Patent-Verwaltungs-G.m.b.H. Double cage rotor for a dynamoelectric machine. 3,496,397, 2-17-70, Cl. 310-212.

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Andresen, John H., Jr., to Intercontinental Dynamics Corporation. Maximum allowable airspeed indicating means. 3,496,534, 2-17-70, Cl. 340-27.

Andresen, John H., Jr., to Intercontinental Dynamics Corporation. Altimeter having differential synchro connecting means. 3,537,086, 10-27-70, Cl. 340-198.

Andress, Harry J., Jr., to Mobil Oil Corporation. Organic compositions containing metal salts of reaction product of an alkyl phenol and an ethyleneamine. 3,493,508, 2-3-70, Cl. 252-42.7

Andress, Harry J., Jr., to Mobil Oil Corporation. Liquid hydrocarbon compositions containing amine salts of ethylene diamine tetra acetic acid as antistatic agents. 3,534,075, 10-13-70, Cl. 260-404.5

Andress, Harry J., Jr., to Mobil Oil Corporation. Amides of ethylene diamine tetra acetic acid. 3,547,867, 12-15-70, Cl. 260-97.5

Andress, Harry J., Jr.; and Capowski, Julius, to Mobil Oil Corporation. Neutral primary tertiaralkyl amine salts of tripolyphosphoric acid and phosphoric acid alkyl esters. 3,504,055, 3-31-70, Cl. 260-924.

Andress, Harry J., Jr.; and Gee, Paul Y. C., to Mobil Oil Corporation. Straight-chain alkylated alpha and beta naphthols. 3,548,011, 12-15-70, Cl. 260-624.

Andress, Harry J., Jr.; and Williams, Albert L., to Mobil Oil Corporation. Organic compositions containing polyalkylated naphthol. 3,492,234, 1-27-70, Cl. 252-56.

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Andrew, John Gilbert Drake, to Patrick, Scott Trading Company (Proprietory) Limited. Fishing reel attachment. 3,510,084, 5-5-70, Cl. 242-84.52

Andrew, John. Auxiliary carburetor. 3,531,094, 9-29-70, Cl. 261-23.

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Andrews, Benjamin D., to Clear Fir Products Co., Oreg., Ltd., and Fibreboard Corporation, d/b/a Clear Fir Sales Co. Gravity-operated means for collecting and stacking articles. 3,490,611, 1-20-70, Cl. 214-6.

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Andrews, Dallas R., to RCA Corporation. Capstan and flywheel arrangement for magnetic tape transport. 3,537,332, 11-3-70, Cl. 74-572.

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Andrews, David; Kimel, Walter; and Propper, Ronald, to Hoffmann-La Roche Inc. 6,7 Epoxy-1-nonen-3-yl-acetoacetates. 3,513,176, 5-19-70, Cl. 260-348.

Andrews, Douglas R.; Atrubin, Allan J.; Baumgartner, Richard J.; Bond, Milton F.; and Hu, Kuang-Chi, to International Business Machines Corporation. Character isolation apparatus. 3,517,387, 6-23-70, Cl. 340-146.3

Andrews, Edward George David; and Oldfield, Harry, to Rolls-Royce Limited. Bi-propellant rocket engine. 3,517,511, 6-30-70, Cl. 60-259.

Andrews, Edward George David; Oldfield, Harry; and Healey, Gordon Terry, to Rolls-Royce Limited. Rocket engine. 3,516,251, 6-23-70, Cl. 60-39.48

Andrews, Edward N. Tool holder bushing. 3,507,508, 4-21-70, Cl. 279-83.

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Andrews, George F., to Research Corporation. Sferics-to-radar data converter. 3,508,259, 4-21-70, Cl. 343-6.

Andrews, George Inglis; Groszek, Aleksander Jerzy; and Witheridge, Rodney Ernest, to British Petroleum Company Limited, The. Surface-modified metals in composites and bearings. 3,516,933, 6-23-70, Cl. 252-12.

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Andrews, Harry N., to Westinghouse Electric Corporation. Control rod insertion system. 3,503,268, 3-31-70, Cl. 74-2.

Andrews, James D.; and Kunz, Walter C., to General Electric Company. Apparatus for making an electrolyte guide member. 3,489,544, 1-13-70, Cl. 65-162.

Andrews, James M.; and Patton, James R., to Sinclair-Koppers Company. Unitary foam sheet container. 3,511,433, 5-12-70, Cl. 229-44.

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Andrews, Peter. Sine, pin-headed dual square. 3,510,950, 5-12-70, Cl. 33-94.

Andrews, Raymond J.; Fields, Gary C.; and Thompson, Harold K., to American Telephone and Telegraph Company. Telephone reporting set. 3,531,597, 9-29-70, Cl. 179-5.

Andrews, Richard L.; Smith, Gerald R.; Kenahan, Charles B.; and Schlain, David, to United States of America, Interior. Electrode position of thick coatings of palladium. 3,547,789, 12-15-70, Cl. 204-39.

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Andrews, Robert S., Jr.; and McDaniels, William C., to National Lead Company. Lignite products and compositions thereof. 3,494,865, 2-10-70, Cl. 252-8.5

Andrews, Robert S. L. Method for continuous centrifugal casting of tubular metal articles. 3,506,060, 4-14-70, Cl. 164-118.

Andrews, Russell W.; Kolesar, Paul M.; Payne, Robert A.; and Posner, Howard G., to Stewart-Warner Corporation. Traveling message display. 3,493,956, 2-3-70, Cl. 340-334.

Andrews, Stuart Alexander; and Lewis, Morgan Wynne, to Rolls-Royce Limited, mesne. Electrical pulse transmitting apparatus. 3,504,538, 4-7-70, Cl. 73-136.

Andrews, Thomas D. H., to Dowty Technical Developments Limited. Air-cushion vehicles and like craft. 3,545,397, 12-8-70, Cl. 114-67.

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Anecki, Jozef Longi; and Nowak, Richard, to Lan-Elec. Limited. Food-slicing machines. 3,515,191, 6-2-70, Cl. 146-102.

Anello, Anthony Peter. Self positioning rotatably mounted simulated golf ball. 3,517,938, 6-30-70, Cl. 273-197.

Anello, Anthony P. Golf driving indicator apparatus. 3,512,417, 5-19-70, Cl. 73-379.

Anello, Anthony P. Golf practicing apparatus. 3,531,125, 9-29-70, Cl. 273-197.

Anello, John, Sr.; and Anello, Joseph L. Building blocks with means for loosely connecting same. 3,518,787, 7-7-70, Cl. 46-26.

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Anello, Louis Gene; and Sweeney, Richard P., to Allied Chemical Corporation. Novel acrylic monomers, polymers and intermediates. 3,520,863, 7-21-70, Cl. 260-89.5

Anello, Louis G.; and Sweeney, Richard F., to Allied Chemical Corporation. Recovery of fluorinated ether. 3,501,533, 3-17-70, Cl. 260-614.

Anello, Louis G.; and Sweeney, Richard F., to Allied Chemical Corporation. Azeotropic distillation of fluorinated ether. 3,501,534, 3-17-70, Cl. 260-614.

Anello, Louis G.; Sweeney, Richard F.; and Litt, Morton H., to Allied Chemical Corporation. Telomers and process for the preparation thereof. 3,514,487, 5-26-70, Cl. 260-614.

Anesi, Mario. Adjustable all purpose rake. 3,495,388, 2-17-70, Cl. 56-400.14

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Anetsberger, Richard J., to Anetsberger Brothers, Inc. Filter. 3,504,798, 4-7-70, Cl. 210-181.

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Angarola, Barry R., to Signode Corporation. Strapping apparatus. 3,543,675, 12-1-70, Cl. 100-17.

Angeid, Egil, to Allmanna Svenska Elektriska Aktiebolaget. Pillow block tensiometer. 3,495,453, 2-17-70, Cl. 73-141.

Angel, Yves; Marie, Gerard; and Geneve, Raoul, to U.S. Philips Corporation, mesne. Optical relay for television purposes. 3,520,589, 7-14-70, Cl. 350-150.

Angelbeck, Albert W., to United Aircraft Corporation. Multiple frequency ultrasonic control for lasers. 3,544,916, 12-1-70, Cl. 331-94.5

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Angelo, Rudolph J., to Du Pont de Nemours, E. I., and Company. Crosslinkable polyamide-acids and polyimides and crosslinked polymeric products made therefrom. 3,533,997, 10-13-70, Cl. 260-47.

Angelo, Rudolph J., to Du Pont de Nemours, E. I., and Company. Soluble polyimides prepared from 2,4-di- aminoisopropylbenzene and pyromellitic di- anhydride and 3,4,3',4'-benzophenonetetracarboxylic dianhydride. 3,546,175, 12-8-70, Cl. 260-65.

Angeloff, Wesley L., to United States of America, Navy. Pressure seated electrical connections in a flexible hydrophone array. 3,495,210, 2-10-70, Cl. 340-9.

Angeloff, Wesley L., to United States of America, Navy. Piezoelectric transducer with electrically conductive mounting rods. 3,521,090, 7-21-70, Cl. 310-9.4

Angeloff, Wesley L., to United States of America, Navy. Fluted cylinder for underwater transducer. 3,543,059, 11-24-70, Cl. 310-8.7

Angelov, Stefan Hristov; Hristova, Snejanka Vladimirova; and Srebev, Srebryu Yovtchev, to Zentralen Institut Po Istchisliteina Technika. Decimal-point indicating system for electronic calculator. 3,548,180, 12-15-70, Cl. 235-159.

Angelucci, Louis J., Jr., to Philco-Ford Corporation. Process for fabricating multicolor image screens. 3,533,791, 10-13-70, Cl. 96-38.3

Angenieux, Pierre. Motion picture film magazine. 3,537,780, 11-3-70, Cl. 352-78.

Anger, Hans G., to Schiedel G.m.b.H., & Co. Prefabricated sectional elements for chimneys and dropping-chutes. 3,538,656, 11-10-70, Cl. 52-219.

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Angier, Robert Bruce: *See—*
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Angiolini, John T.: *See—*
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Anglada, Federico Esteve; and Serra, Juan Duarry. Process for the manufacture of extensible moulded articles having perforated or reticulated structure. 3,496,265, 2-17-70, Cl. 264-306.

Anglada, Federico Esteve; and Serra, Juan Duarry. Process for the manufacture of extensible moulded articles having perforated or reticulated structure. 3,539,681, 11-10-70, Cl. 264-306.

Anglaret, Paul; and Corbin, Jean Francois, to Rhone-Poulenc S.A. Process for the preparation of dialkyl phosphorochloridothioates. 3,502,750, 3-24-70, Cl. 260-986.

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Angle, William H., to Plessey Airborne Corporation. Limit switch operating mechanism for actuators. 3,529,104, 9-15-70, Cl. 200-47.

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Angliker, Hansjoerg, to Ciba Limited. Water-insoluble phenyl-azo-phenyl dyestuffs. 3,530,111, 9-22-70, Cl. 260-206.

Angliker, Hansjoerg, to Ciba Limited. Linear polyester fiber dyed with water-insoluble azo dyestuffs. 3,547,571, 12-15-70, Cl. 8-41.

Anglin, Larn Carnell, Jr.: *See—*
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Anglin, Bernard S.: *See—*
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Anglin, Ian Bruce; and Delmenico, Jack, to Commonwealth Scientific and Industrial Research Organization. Method of dyeing wool and composition therefor black. 3,521,989, 7-28-70, Cl. 8-54.

Angold, Edward Barnabas. Snap-action electric switch. 3,519,772, 7-7-70, Cl. 200-67.

Angona, Frank A., to Mobil Oil Corporation. Wellbore drilling with shock waves. 3,506,076, 4-14-70, Cl. 175-57.

Angona, Frank A., to Mobil Oil Corporation. Cavitational drilling utilizing an acoustic generator and an acoustic concentrator. 3,545,552, 12-8-70, Cl. 175-65.

Angonese, Albino N.; and Gorenflo, Raymond J., to Fedders Corporation. Structure for holding electrically charged member. 3,513,634, 5-26-70, Cl. 55-139.

Angquist, Torsten F., to Crescent Niagara Corporation. Spring opened pliers. 3,521,510, 7-21-70, Cl. 81-417.

Angquist, Torsten F., to Crescent Niagara Corporation. Reversible cam lock driver. 3,545,312, 12-8-70, Cl. 81-59.1

Angst, Walter, to Meteor AG. Drive mechanism for a to-and-fro movable carriage. 3,489,020, 1-13-70, Cl. 74-37.

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Angus, Hamish Carmichael, to International Nickel Company, Inc., The. Method of making palladium coated electrical contacts. 3,500,537, 3-17-70, Cl. 29-630.

Angus, Hamish Carmichael; and Stevens, John Michael. Electrodeposition of palladium. 3,544,435, 12-1-70, Cl. 204-47.

Angus, James W., to Kollsman Instrument Corporation. Extreme environment pressure sensor. 3,518,885, 7-7-70, Cl. 73-398.

Angus, John C., to Valley Company Incorporated. Method and apparatus for direct conversion of thermal energy to electrical energy. 3,511,715, 5-12-70, Cl. 136-86.

Angus, John C.; and Fredrick, Russell E., to Minnesota Mining and Manufacturing Company. Thermoelectric composition and leg formed of lead, sulfur, and tellurium. 3,527,622, 9-8-70, Cl. 136-238.

Angus, Robert H. Movable bed apparatus. 3,516,097, 6-23-70, Cl. 5-323.

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Anhalt, Jack W., to International Telephone and Telegraph Corporation. Method of connector manufacturing. 3,494,998, 2-10-70, Cl. 264-249.

Anhalt, John W.; and Lane, John V., to International Telephone and Telegraph Corporation. Packaging and actuating system for printed circuit boards and electrical connector assemblies. 3,495,132, 2-10-70, Cl. 317-101.

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Anis, Peter, to Zuse KG. Electrical control arrangement for controlling the movement of a machine part. 3,548,281, 12-15-70, Cl. 318-569.

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Anke, Rudolph, to North American Rockwell Corporation, mesne. Safety stop mechanism for straight bar knitting machine. 3,487,661, 1-6-70, Cl. 66-157.

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Ankersen, Borge Richard. Incinerating apparatus and methods. 3,507,232, 4-21-70, Cl. 110-8.

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Annand, Robert R.; Redmore, Derek; and Rushton, Brian M., to Petrolite Corporation. Use of heterocyclic polymers as water clarifiers. 3,509,046, 4-28-70, Cl. 210-54.

Annand, Robert R.; Redmore, Derek; and Rushton, Brian M., to Petrolite Corporation. Use of heterocyclic polymers as corrosion inhibitors. 3,514,251, 5-26-70, Cl. 21-2.5

Annand, Robert R.; Redmore, Derek; and Rushton, Brian M., to Petrolite Corporation. Cyclic amidine polymers. 3,531,496, 9-29-70, Cl. 260-309.6

Annand, Robert R.; and Ruston, Brian M., to Petrolite Corporation. Process of inhibiting corrosion of ferrous metals and alloys employing a polyvinyl heterocyclic polymer. 3,488,294, 10-6-70, Cl. 252-391.

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Anner, Arthur W., to Procter & Gamble Company, The. Textile lubricant. 3,519,562, 7-7-70, Cl. 252-8.8

Anner, Georg; and Wieland, Peter, to Ciba Corporation. $\Delta^{2,3}$-7 d-Methyloestradienes. 3,522,281, 7-28-70, Cl. 260-397.5

Anner, Georg; and Wieland, Peter, to Ciba Corporation. Process for the selective saturation of double bonds in steroids. 3,530,118, 9-22-70, Cl. 260-239.55

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Ano, Toshichi; Akawakami, Koji; and Endo, Kensaku, to Kyowa Hakko Kogyo Co., Ltd.Producing sake and baker's dry yeasts. 3,536,498, 10-27-70, Cl. 99-96.

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Ansdell, Derek Arnold, to Imperial Chemical Industries Limited. Process of making dispersions of pigments coated with a polymer containing polar groups in liquids. 3,532,662, 10-6-70, Cl. 260-34.2

Ansel, Richard M.; and Neukom, Alfred, to Chemetron Corporation. Method and apparatus for welding rail sections to form a continuous rail. 3,488,467, 1-6-70, Cl. 219-101.

Ansel, Robert E.; and Taubman, Charles M., to De Sota, Inc. Acidic photoconductive resin binders. 3,540,886, 11-17-70, Cl. 96-1.8

Anselm, Courtenay D., to Eastman Kodak Company. Magenta color developer solutions. 3,489,566, 1-13-70, Cl. 96-56.5

Ansingh, Carl H., to Molex Products Company. Method of manufacturing self-tapping screws. 3,535,674, 10-20-70, Cl. 339-107.

Ansite, William Kenneth, to Sierra Engineering Company. Three-phase mono-diaphragm breathing valve. 3,527,242, 9-8-70, Cl. 137-102.

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Anspon, Harry D., to Gulf Research & Development Company. Novel ethylene copolymers and self-supporting film prepared therefrom. 3,542,749, 11-24-70, Cl. 260-86.7

Anspon, Harry D.; and Clampitt, Bert H., to Gulf Research & Development Company. Ion exchange process. 3,509,084, 4-28-70, Cl. 260-29.6

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Anstett, Raymond Michael, to Colgate-Palmolive Company. Water-based aerosol composition. 3,505,236, 4-7-70, Cl. 252-90.

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Anstey, Nigel Allister; and Lerwill, William Edward, to Seismograph Service Corporation, mesne. Methods of and apparatus for the correlation of time variables and for the filtering, analysis and synthesis of waveforms. 3,519,925, 7-7-70, Cl. 324-77.

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Antes, Jack E.; and Wright, Jackie, to Hughes Aircraft Company. Electrical connector. 3,539,973, 11-10-70, Cl. 339-143.

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Anthes, John A.; and Martinson, Albert M., to Dravo Corporation. Kort nozzle. 3,499,412, 3-10-70, Cl. 115-42.

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Anthone, Marcella M. Detachably mounted residue remover. 3,503,088, 3-31-70, Cl. 15-160.

Anthony, Albert M., to Kidde, Walter, Company, Inc. Adjustable mounting means for a convergence assembly. 3,500,270, 3-10-70, Cl. 335-212.

Anthony, Albert M., to Kidde, Walter, Company, Inc. Magnetic apparatus for laterally converging the beams of a triple gun cathode ray tube. 3,512,023, 5-12-70, Cl. 313-77.

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Anthony, David; and Crane, Robert, to Clairol Incorporated. Custom conditioner. 3,527,236, 9-8-70, Cl. 132-7.

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Anthony, Myron L., 10% to Dorn, Thomas E. Control system for aircraft navigation display and autopilot. 3,488,427, 1-6-70, Cl. 73-178.

Anthony, Myron L., 10% to Dorn, Thomas E. Aircraft altitude indicator devices. 3,545,090, 12-8-70, Cl. 33-204.

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Anthony, Ralph J.; Larson, Clarence E.; and Gates, Robert H., to Martin-Marietta Corporation. Pipe machine. 3,517,424, 6-30-70, Cl. 25-31.

Anthony, Robert C., to Union Brass and Metal. Fluid metering and mixing device. 3,532,123, 10-6-70, Cl. 137-636.2

Anthony, Russel W.; and Motz, Carl H., to Lear Siegler, Inc., mesne. Pitch diameter rounder. 3,505,847, 4-14-70, Cl. 72-107.

Anthony, Russell W. Expanding arbor. 3,492,914, 2-3-70, Cl. 90-1.

Anthony, Russell W.; and Mc Nabb, Warren C., to Lear Siegler, Inc. Gear shaving cutter. 3,546,760, 12-15-70, Cl. 29-103.

Anthony, Russell W.; and McNabb, Warren C., to Lear Siegler, Inc., mesne. Method of making a gear shaving cutter. 3,505,911, 4-14-70, Cl. 76-101.

Anthony, Tad B., to Maytag Company, The. Device for axially locking a shaft. 3,520,547, 7-14-70, Cl. 280-43.24

Anthony, Tad B., to Maytag Company, The. Centrifugal extractor control. 3,526,105, 9-1-70, Cl..68-12.

Anthony, Tad B.; and Hunter, William H., to Maytag Company, The. Washing apparatus for permanent press fabrics. 3,550,171, 12-29-70, Cl. 8-158.

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Anthony, William C., to Upjohn Company, The. 1,2-Dihydro-1-hydroxy-6-alkyl-2-(aminomethylimino) pyrimidines and 1,6-dihydro-1-hydroxy-2-alkyl-6- (aminomethylimino)pyrimidines. 3,551,420, 12-29-70, Cl. 260-247.5

Anthony, William C.; and Szmuszkovicz, Jacob, to Upjohn Company, The. 3-(2-Pyrrolidinylidene)-3H-indoles. 3,506,683, 4-14-70, Cl. 260-326.15

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Antle, William K., to Boeing Company, The. Devices for vacuum brazing. 3,497,944, 3-3-70, Cl. 29-494.

Anton, John R.; Parry, Sidney J. S.; and Anderson, Wayne A., to Great Lakes Carbon Corporation. Connections between electrical conductors and carbon bodies. 3,489,668, 1-13-70, Cl. 204-286.

Anton, Nicholas T.; and Daughetee, Lew H., to Wen Products, Inc. Vibratory tool. 3,540,161, 11-17-70, Cl. 51-170.

Anton, Nicholas; and Youdin, Myron, to Eon Corporation. Apparatus for developing thermoplastic resin type films. 3,501,235, 3-17-70, Cl. 355-9.

Anton, Nicholas; and Youdin, Myron, to Eon Corporation. Range measuring apparatus using radioactive material. 3,508,046, 4-21-70, Cl. 250-43.5

Antonevich, John N., to Blackstone Corporation. Ultrasonic impact cleaners and methods of cleaning. 3,527,607, 9-8-70, Cl. 134-1.

Antonevich, John N., to Blackstone Corporation. Methods and apparatus for testing glassware. 3,541,838, 11-24-70, Cl. 73-12.

Antoni, Carlo Degli; and Masci, Giuseppe. Yarn twisting, bulking and winding machine. 3,525,205, 8-25-70, Cl. 57-34.

Antonich, Frederick J. Control circuit for interrupted load energization. 3,506,876, 4-14-70, Cl. 315-200.

Antonissen, Peter, to Monsanto Chemicals Limited. Apparatus for preparing refractory shell molds. 3,530,825, 9-29-70, Cl. 118-56.

Antonsen, Anker K.; and Foreman, Matthew L., to Fairbanks Morse Inc. Opposed piston engine having improved cylinder liner cooling. 3,534,715, 10-20-70, Cl. 123-41.79

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Appleton, Anthony D.; Ginty, Bernard K.; and MacNab, Robert B., to International Research & Development Company Limited. Direct current heteropolar electrical machines. 3,535,573, 10-20-70, Cl. 310-177.

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Archer, Andrew M., to Specialties Development Corporation. Photoelectric motion detector with a pair of photocells viewing different parts of the field. 3,502,883, 3-24-70, Cl. 250-210.

Archer, Andrew M. Safety connectors for electrical extension cords. 3,543,218, 11-24-70, Cl. 339-74.

Archer, Bill; and Low, John L., III. Method of pre-stressing a column. 3,514,918, 6-2-70, Cl. 52-741.

Archer, David H.; English, William A.; and Merrill, Peter S., to United States of America, Interior. Solid electrolyte stacked disc fuel cells. 3,526,549, 9-1-70, Cl. 136-86.

Archer, Frank. Weighted wristband. 3,490,768, 1-20-70, Cl. 273-32.

Archer, Fred Curtis; DeDiemar, Ronald B.; and Schuman, Le Roy J., to Barber-Greene Company. Gyratory crusher. 3,533,568, 10-13-70, Cl. 241-202.

Archer, Geoffrey Alan, to Nichols Engineering & Research Corporation. Grate assemblies for refuse incinerators. 3,543,703, 12-1-70, Cl. 110-39.

Archer, Giles A.; and Sternbach, Leo Henryk, to Hoffmann-La Roche Inc. N-substituted glycine derivatives. 3,504,013, 3-31-70, Cl. 260-471.

Archer, Giles A.; and Sternbach, Leo Henryk, to Hoffmann-La Roche Inc. N-(2-aroylphenyl)glycine oxime derivatives. 3,504,014, 3-31-70, Cl. 260-471.

Archer, Giles A.; and Sternbach, Leo Henryk, to Hoffmann-La Roche Inc. N-(2-aroylphenyl)glycine derivatives. 3,504,015, 3-31-70, Cl. 260-471.

Archer, Giles A.; and Sternbach, Leo Henryk, to Hoffmann-La Roche Inc. Process for the preparation of 2,3,4,5- tetrahydro-5-aryl-1H-1,4-benzodiazepine derivatives. 3,531,467, 9-29-70, Cl. 260-239.

Archer, Giles Allan; and Sternbach, Leo Henryk, to Hoffmann-La Roche Inc.Process for preparing a 2[1-(2-amino-5- phenyl)-1-phenylmethylamino]acetic acid derivative. 3,522,289, 7-28-70, Cl. 260-471.

Archer, Jermiah L., to Caryl, Coleman R., d/b/a Desert Sunshine Exposure Tests. Device for testing a sample with solar radiation including means to dampen the sample. 3,521,966, 7-28-70, Cl. 356-256.

Archer, Jermiah L., to Caryl, Coleman R., d/b/a Desert Sunshine Exposure Tests. Mirror protector means for solar radiation testing machines. 3,521,967, 7-28-70, Cl. 356-256.

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Archer, Lee A., to Erdco Engineering Corporation. Combustible gas detector sampling head. 3,522,010, 7-28-70, Cl. 23-254.

Archer, Robert L., to Fairchild Camera and Instrument Corporation. Velocity-sensing apparatus. 3,526,141, 9-1-70, Cl. 73-503.

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Archer, Sydney, to Sterling Drug Inc.1-[(Imidazolyl)-lower-alkyl]-4-substituted- piperazines. 3,491,098, 1-20-70, Cl. 260-268.

Archer, Sydney, to Sterling Drug Inc.1-[(4-,5-,6-, and 7-Azaindolyl)-lower alkyl]-4- substituted-piperazines. 3,511,841, 5-12-70, Cl. 260-268.

Archer, Sydney, to Sterling Drug Inc. Tertiary-amino-lower-alkoxy-9-R-9- hydroxyxanthenes and thioxanthenes. 3,532,711, 10-6-70, Cl. 260-326.5

Archer, Sydney, to Sterling Drug Inc.1-[(3-Indolyl)-lower-alkyl]-4-substituted- piperazines. 3,547,922, 12-15-70, Cl. 260-268.

Archer, Sydney; and Lorenz, Roman R., to Sterling Drug Inc. Preparation of 7-cyclohexylheptanoic acid and 8-cyclohexyloctanoic acid. 3,523,959, 8-11-70, Cl. 260-413.

Archer, Wesley L.; and Harter, Miriam K., to Dow Chemical Company, The. Polychloroethylene stabilized by metallic benzoates. 3,527,703, 9-8-70, Cl. 252-153.

Archer, Wesley L.; and Simpson, Elbert L., to Dow Chemical Company, The. Stabilazation of 1,1,1-trichloroethane. 3,494,968, 2-10-70, Cl. 260-652.5

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Archer, Wesley L.; Simpson, Elbert L.; and Graybill, George Richard, to Dow Chemical Company, The. Stabilization of 1,1,1-trichloroethane. 3,501,538, 3-17-70, Cl. 260-652.5

Archer, William E. Screw type material processor. 3,548,926, 12-22-70, Cl. 165-87.

Archer, William E.; and Coe, Everett L., Jr. Electrical control method and apparatus. 3,527,022, 9-8-70, Cl. 55-2.

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Archey, William B., to International Business Machines Corporation. Magnetostriction control in magnetic thin films. 3,525,638, 8-25-70, Cl. 117-240.

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Ardis, Alan E.; Dietrich, Heinz J.; Raymond, Maurice A.; and Urs, Venkataramaraj S., to Olin Mathieson Chemical Corporation. Polymerization of divinyl acetals. 3,514,435, 5-26-70, Cl. 260-91.1

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Arnold, William O., Jr., to Union Insulating Company, Inc. Receptacle support bracket. 3,522,924, 8-4-70, Cl. 248-216.

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Arnoldy, Roman F. Abrasion resistant plate. 3,494,749, 2-10-70, Cl. 29-196.1

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Aronoff, Elihu J.; and McLaughlin, Ernest O., to Ford Motor Company. Radiation curable paint containing a vinyl binder resin having pendant monoester groups. 3,542,586, 11-24-70, Cl. 117-93.31

Aronoff, Elihu J.; and McLaughlin, Ernest O., to Ford Motor Company. Radiation curable paint containing a vinyl ester binder resin having pendant diester groups. 3,542,587, 11-24-70, Cl. 117-93.31

Aronson, Aaron B.: *See—*
Dilsner, Frederick W.; Aronson, Aaron B.; and Jones, John E.,3,541,960.

Aronson, Bernard S., to Corning Glass Works. Solid state current controlled diode with a negative resistance characteristic. 3,502,953, 3-24-70, Cl. 317-238.

Aronson, Philip M.; and Culpepper, Ronald M., to United States of America, Navy. Radiation compensating pressure sensor. 3,545,919, 12-8-70, Cl. 73-35.

Aronson, Robert R., to Electric Fuel Propulsion, Incorporated, mesne. Floor interconnecting battery cells. 3,518,127, 6-30-70, Cl. 136-134.

Aronson, Robert R., to Electric Fuel Propulsion, Incorporated. Regenerative system for electric vehicle. 3,530,356, 9-22-70, Cl. 320-61.

Aronson, Robert R., to Electric Fuel Propulsion, Incorporated. Air supported electric vehicle. 3,548,968, 12-22-70, Cl. 180-119.

Aronson, Robert, to Electric Fuel Propulsion, Incorporated. Ionizing apparatus for reducing air resistance. 3,507,348, 4-21-70, Cl. 180-65.

Aronson, Theodore F., to Perry Industries, Inc. Method and apparatus for making cigarette filter tips. 3,545,345, 12-8-70, Cl. 93-1.

Aronson, Theodore F.; and Hostetler, Van B., said Aronson assor. to Lilly, Eli, and Company, mesne. Method and apparatus for filling capsules. 3,527,015, 9-8-70, Cl. 53-37.

Aronson, Theodore F.: *See—*
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Aronson, Willard P.: *See—*
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Aronsson, Lars Bertil, to Forsvarets Fabriksverk. Centrifugally controlled electrical time fuse for a spin stabilized projectile. 3,520,254, 7-14-70, Cl. 102-70.2

Aronstein, Jesse; Gunthert, Richard John; and Trollmann, Conrad, to International Business Machines Corporation. Pin length sorter. 3,498,452, 3-3-70, Cl. 209-73.

Arora, Ram S., to Ford Motor Company. Dynamoelectric machine armature. 3,521,101, 7-21-70, Cl. 310-233.

Aroyan, George F.: *See—*
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Arp, Leon J.; and Dowling, Wayne C. Digital control for a stepping motor drive used in an automatic drafting machine. 3,500,154, 3-10-70, Cl. 318-18.

Arp, Leon J.; and Varnum, James M., said Varnum assor to said Arp. Respiratory apparatus. 3,530,872, 9-29-70, Cl. 137-99.

Arp, Leon J.; and Varnum, James M., said Varnum assor. to said Arp. Fluid delivery device. 3,530,873, 9-29-70, Cl. 137-99.

Arpax Company, The: *See—*
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Arps, Ronald B., to International Business Machines Corporation. Repeated scan digitally coded facsimile transmission. 3,499,975, 3-10-70, Cl. 178-6.

Arquembourg, Pierre C. Immuno-electrophoretic method and apparatus. 3,494,846, 2-10-70, Cl. 204-180.

Arrance, Frank C.: *See—*
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Arrance, Frank C., to McDonnell Douglas Corporation. Separator for electrochemical devices. 3,539,394, 11-10-70, Cl. 136-6.

Arrance, Frank C., to McDonnell Douglas Corporation. Battery Separator. 3,542,596, 11-24-70, Cl. 136-6.

Arrance, Frank C.; and Berger, Carl, to McDonnell Douglas Corporation. Thermal battery. 3,542,604, 11-24-70, Cl. 136-205.

Arrasmith, Grant H.: *See—*
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Arridge Company, The: *See—*
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Arrigo, Joseph T., to Universal Oil Products Company. Nuclear vinylation of phenols. 3,506,721, 4-14-70, Cl. 260-613.

Arrigo, Joseph T., to Universal Oil Products Company. Nuclear vinylation of phenols. 3,536,717, 10-27-70, Cl. 260-289.

Arrigo, Joseph T.; Christensen, Nils J.; Chrysler, Richard L.; and Sparks, Allen K., to Universal Oil Products Company. Hydrogenation of cinnamic aldehyde. 3,520,935, 7-21-70, Cl. 260-599.

Arrington, George M., to Arridge Company, The. Golf tee ball guard and modified tee. 3,506,263, 4-14-70, Cl. 273-33.

Arrington, James R.: *See—*
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Arrington, William L.: *See—*
Vistain, James E., Jr.; and Arrington, William L.,3,489,852.

Arriola, William A.: *See—*
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Crecelius, John D.; Arriola, William A.; Sumnicht, Howard I.; Regelson, Ephraim; and Silberberg, George G.,3,546,376.

Arron, Stanley. Electrically heated body garment. 3,501,616, 3-17-70, Cl. 219-211.

Arron, Stanley. Electric heating element for apparel. 3,524,965, 8-18-70, Cl. 219-211.

Arrow Manufacturing Company: *See—*
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Arrowood, Joseph L.; and Groppe, Wayne A., to United States of America, Atomic Energy Commission. Stutter counting circuit for a digital control system. 3,500,023, 3-10-70, Cl. 235-92.

Arsac, Aime Joseph; and Domenech, Fidele, to Etablissements Kuhlmann. Reactive azo, perinone and naphthoylene- benzimidazole dyes containing 2-chlorobenzothiazole groups. 3,496,161, 2-17-70, Cl. 260-158.

Arsac, Aime Joseph: *See—*
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Arsem, Alvan Donald, to Wurlitzer Company, The. Polarized light display. 3,538,322, 11-3-70, Cl. 240-9.5

Arsenault, Alyre L. Fishing reel with automatic drag brake. 3,526,370, 9-1-70, Cl. 242-84.5

Arsenault, James H.: *See—*
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Kamborian, Jacob S.; Vornberger, Walter A.; and Arsenault, James H.,3,490,413.

Arsenault, Joseph R.; and Bogle, William N., to United States of America, Army, mesne. Integrated circuit package programmable test socket. 3,517,144, 6-23-70, Cl. 200-46.

Arsenault, Robert P., to Abex Corporation. Slushing scraper. 3,524,507, 8-18-70, Cl. 172-26.5

Arsenault, Robert P., to Abex Corporation. Hammer mill hammers with replaceable tip. 3,545,691, 12-8-70, Cl. 241-197.

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Arshal, George. Vortex generator. 3,539,273, 11-10-70, Cl. 416-4.

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Artamanoff, Serge: *See—*
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Artaud, Gerard P., 1/2 to Hodgson, R. W. Adjustable-cutting-radius rotary cutting tool attachment head. 3,524,382, 8-18-70, Cl. 90-11.

Artaud, Gerard P., 1/2 to Hodgson, R. W. Self-centering deburring tool. 3,540,325, 11-17-70, Cl. 77-73.5

Artaud, Maurice H.: *See—*
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Artco, Inc.: *See—*
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Susi, Peter Vincent; and Arthen, Frank Joseph, Jr.,3,517,045.

Arthen, Frank Joseph, to American Cyanamid Company. Antistatic agents for plastic compositions. 3,542,748, 11-24-70, Cl. 260-80.7

Arthur Albert B., to Rixson, Inc. Adjustable coupler for door closer. 3,496,594, 2-24-70, Cl. 16-49.

Arthur, Eric R.; and Clemesha, Oliver R. Dress forms. 3,511,423, 5-12-70, Cl. 223-68.

Arthur, Hugh MacDonald; Montgomery, John Young Condie; and Walker, Donald Ferguson, to Ferranti Limited. Servomechanism including pulse train commands, pulse feedback from an optical encoder, and phase comparsion. 3,523,231, 8-4-70, Cl. 318-608.

Arthur, James B.; and Osmar, John J., to Celanese Corporation. Cigarette filter plug. 3,543,769, 12-1-70, Cl. 131-268.

Arthur, Jett C., Jr.; Blouin, Florine A.; Mares, Trinidad; Stanonis, David J.; Phillips, Glyn O.; and Sarkar, Ila M., to United States of America, Agriculture. High energy radiation stabilization of cellulose obtained by esterifying with benzoyl chloride. 3,519,382, 7-7-70, Cl. 8-120.

Arthur, Jett C., Jr.; and Robertson, James A., Jr., to United States of America, Agriculture. Photochemical process for detoxification of fungal metabolites. 3,506,452, 4-14-70, Cl. 99-17.

Arthur, John R., Jr.; and Wagner, Richard S., to Bell Telephone Laboratories, Incorporated. Vapor-liquid-solid crystal growth technique for the production of needle-like single crystals. 3,505,127, 4-7-70, Cl. 148-1.6

Arthur, Lorne H.: *See—*
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Artiaga, Mariano V.; Storrie, Arthur; and Wolf, Andrew, to Kitchens of Sara Lee, Inc. Sanitary closed system method and apparatus for preparing and depositing viscous fluids such as whipped cream and the like. 3,547,052, 12-15-70, Cl. 107-54.

Artico, Marino: *See—*
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Artin, Joseph. Minnow bucket irrigating valve. 3,499,243, 3-10-70, Cl. 43-56.

Artis, Edward J.; and Artis, Paul A. Stationary chimney vacuum cap. 3,523,500, 8-11-70, Cl. 98-78.

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Artley, John L., to United States of America, Atomic Energy Commission. Superconductor gating or switching devices. 3,505,538, 4-7-70, Cl. 307-245.

Artmann, Kurt. Metering and dispensing device for liquids. 3,537,620, 11-3-70, Cl. 222-335.

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Artzer, Charles W.; and Di Cicco, Alexander M. Center plate assembly. 3,510,180, 5-5-70, Cl. 308-137.

Artzt, William Walter. Undershorts with moisture-proof crotch lining. 3,496,576, 2-24-70, Cl. 2-224.

Artzt, William Walter. Waterproof panties for infants. 3,513,847, 5-26-70, Cl. 128-288.

Arutunian, Gregory, to United States of America, Army. Titanium-iron eutectic metalizing. 3,505,094, 4-7-70, Cl. 117-50.

Arvai, Mihaly: *See—*
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Arval, Tibor, to Sperry Rand Corporation. Key mechanism for mechanical calculators. 3,522,418, 8-4-70, Cl. 235-145.

Arvan, John. Distillation apparatus to recover potable water from non-potable water. 3,522,149, 7-28-70, Cl. 202-196.

Arvanitakis, Kostas Savas, 1/2 to Goutos, George. Method and apparatus for clarifying a liquid. 3,497,452, 2-24-70, Cl. 210-39.

Arvidson, Bengt A.; and Treiber, Fritz F., to Corley-Miller, Inc. Package labelling equipment. 3,544,412, 12-1-70, Cl. 156-360.

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Arvin, James A., to Sherwin-Williams Company, The. Paint vehicle prepared from homopolymers of 9-oxatetracyclo $4.4.1^{2,5}.0^{1,6}.0^{8,10}$ undecan 4 ol. 3,532,650, 10-6-70, Cl. 260-22.

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Aseda, Takashi, to Tachikawa Research Institute. Process for manufacturing rayon having high degree of polymerization by the viscose process. 3,506,754, 4-14-70, Cl. 264-191.

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Asai, Harumi; Komai, Histaka; and Yoda, Ryuichiro, to Japanese Geon Co., Ltd. Polymerization of olefin oxides. 3,506,597, 4-14-70, Cl. 260-2.

Asai, Isao; and Schmoock, Roy F., to Fischer & Porter Company. Square root extractor. 3,496,346, 2-17-70, Cl. 235-193.5

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Asano, Taisuke; and Kanetaka, Junichi, to Mitsubishi Petrochemical Co., Ltd. Process for the catalytic hydrogenation of aromatic compounds. 3,509,227, 4-28-70, Cl. 260-667.
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Longworth, David Phillip; Hick, Michael Alfred Sampson; and Lugton, William Townsley, 3,515,982.
Mitchell, Peter, 3,536,885.
Musham, John Robin, 3,518,489.
Powers, Patrick, 3,522,428.
Randall, Kenneth Barrington; Maycock, William Henry; and Hoffman, Roger Thomas, 3,505,563.
Roberts, David Henry, 3,525,609.
Warman, Bloomfield James, 3,500,442.
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Warren, Keith George, 3,503,013.
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Welch, Brian Richard, 3,495,662.
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Associated Engineering Limited: *See—*
Brown, Dennis Cockburn, 3,521,707.
Mair, Joseph, 3,513,815.
Mair, Joseph, 3,543,734.
Strauch, Heinrich, 3,500,271.

Associated Millwrights, Inc.: *See—*
Johnston, Kenneth H., 3,507,379.
Johnston, Kenneth H., 3,527,336.

Associated Sales Enterprises, Inc.: *See—*
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Associated Spring Corporation: *See—*
Maker, James H.; and Kurasz, George W., 3,516,874.
Wells, Joseph W., 3,503,601.

Associated Testing Laboratories, Inc.: *See—*
Myre, Albert T., 3,487,653.

Associated Western Enterprises: *See—*
Mackowiak, James F., 3,491,734.

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Miroux, Jean A. R., 3,503,052.

Assony, Edward M., to Western Gear Corporation. Core chuck for mounting paper rolls on collators or printing presses. 3,501,107, 3-17-70, Cl. 242-68.4

Assony, Edward M., to Western Gear Corporation. Folder beater brush for collator for zig-zag folder. 3,547,430, 12-15-70, Cl. 270-79.

Ast, Adolf, to August Sauter KG. Analytical scale with coarse and fine weighing. 3,522,857, 8-4-70, Cl. 177-170.

Asta-Werke AG, Chemische Fabrik: *See—*
Arnold, Herbert; Pahls, Kurt; Rebling, Rolf; Brock, Norbert; and Lenke, Hans Dieter, 3,532,685.

Astashkin, Anatoly Alexeevich: *See—*
Mikhailov, Pavel Mikhailovich; Smirnov, Alexandr Fedorovich; Babitsky, Abram Arkadievich; Primanchuk, Leonid Ivanovich; Molodtsov, Antonin Afanasievich; Garbuzov, Zalman Eremeevich; Timofeevna, Maria Nikolaevna; Astashkin, Anatoly Alexeevich; Mutushev, Gavriil Akhmetovich; and Arkhipov, Anatoly Fedorovich,3,510,970.

Astheimer, Robert W., to Barnes Engineering Company. Infrared thermograph. 3,502,874, 3-24-70, Cl. 250-83.3

Astheimer, Robert W., to Barnes Engineering Company. Light modulation means for an infrared thermograph. 3,509,345, 4-28-70, Cl. 250-83.3

Astheimer, Robert W., to Barnes Engineering Company. Method of remotely monitoring stack effluent. 3,517,190, 6-23-70, Cl. 250-43.5

Astheimer, Robert W., to Barnes Engineering Company. Picture motion detection systems. 3,544,988, 12-1-70, Cl. 340-282.

Astheimer, Robert W., to Barnes Engineering Company. Sensor for detecting the attitude of an aerial vehicle with respect to the local vertical. 3,548,194, 12-15-70, Cl. 250-83.3

Astheimer, Robert W., to Barnes Engineering Company. Non-scanning horizon position indicator independent of planet radiance variations utilizing inverted overlapping fields of view. 3,551,681, 12-29-70, Cl. 250-209.

Asti, Adolph Reynol, to Redwood Food Packing Company, mesne. Pome fruit juice containing pulp. 3,518,093, 6-30-70, Cl. 99-105.

Astle, Thomas W. Serial dilution machine. 3,536,449, 10-27-70, Cl. 23-230.

Astleford, John J., Jr., to Westinghouse Electric Corporation. Circuit breaker with improved trip means. 3,525,058, 8-18-70, Cl. 335-35.

Astley, Edward T., to Crosfield Electronics Limited. Photographic type composing. 3,529,521, 9-22-70, Cl. 95-4.5

Aston, Bruno D. Device for dispensing and applying liquid materials. 3,494,702, 2-10-70, Cl. 401-122.

Aston, Keith. Photoelectric timing control apparatus. 3,510,661, 5-5-70, Cl. 250-214.

Aston, Keith, to Pavelle Corporation, The. Colour correction filter. 3,536,402, 10-27-70, Cl. 355-35.

Aston, William Charles; and Hall, George, to Imperial Metal Industries (Kynoch) Limited. Hardness testing machines and weight selecting mechanisms. 3,513,691, 5-26-70, Cl. 73-83.

Astor Manufacturing Co., Inc.: *See—*
Martin, Louis H., 3,543,381.

Astor-Werke Otto Berning & Co.: *See—*
Berning, Rudolf, 3,540,085.

Astra Nutrition Aktiebolag: *See—*
Ehrensvard, Carl Henrik Gosta; Lofqvist, Bo Vilhelm; and Sjoberg, Lars-Borje, 3,491,080.
Osterman, Sven-Olof, 3,525,623.

Astra Pharmaceutical Products, Inc.: *See—*
Truant, Aldo P.; and Nordstrom, Fritz G., 3,549,748.

Astrella, Frank T., to Indian Head Inc. Oven door construction. 3,489,135, 1-13-70, Cl. 126-198.

Astro Controls, Inc.: *See—*
Veres, Edward W.; Draxler, Walter E.; Hanson, Herbert G.; and Poethig, Robert E., 3,507,098.

Astro Dynamics, Inc.: *See—*
Katz, Leonhard, 3,489,968.
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Astro-Science Corporation: *See—*
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Astro-Space Laboratories, Inc.: *See—*
Mueller, Fritz K., 3,548,507.

Astrodata, Inc.: *See—*
Gunning, William F.; and Madsen, R. Glen, 3,488,452.
Jones, Stanley R.; and Long, Brian H., 3,500,021.

Astrom, Nils Osten. Multi-stage dust separator. 3,541,764, 11-24-70, Cl. 55-302.

Astron Corporation: *See—*
Cowling, Robert E.; Harris, William H.; and Lafitte, Carl Wayne, 3,498,036.

Astronics Luminescent, Inc.: *See—*
Robinson, Bessie A., 3,531,676.

Astrosystems International, Inc.: *See—*
Holme, John C., 3,488,130.
Lehrer, Stanley, 3,499,718.
Strauss, Robert F., 3,516,772.

Astrov, Nikolai Alexandrovich; Egorkin, Vyacheslav Vasilievich; Klemin, Albert Nikolaevich; Leonov, Vladimir Ivanovich; Petrushev, Vladimir Alexeevich; Speransky, Nikolai Georgievich; and Strigin, Igor Alexandrovich. Multidisc two-row planetary friction progressive transmission. 3,490,313, 1-20-70, Cl. 74-796.

Astrove, Edgar, to Frankel, Ferdinand, Mrs., d/b/a Frankel Connector Company. Electric cable connector with bulging contour for taping. 3,496,284, 2-17-70, Cl. 174-72.

Astrove, Edgar, to Frankel, Ferdinand, d/b/a Frankel Connector Company. Line fault indicator using moire patterns. 3,528,009, 9-8-70, Cl. 324-133.

Astrove, Reynold H.: *See—*
Mesce, Daniel J.; and Astrove, Reynold H.,3,526,029.

Astumi, Toshio: *See—*
Yamamoto, Hisao; Nakamura, Yasushi; Nakao, Masaru; Astumi, Toshio; and Kobayashi, Tsuyoshi,3,535,326.

Aszalos, Adorjan; Robison, Robert S.; Pansey, Felix E.; and Berk, Benard, to Squibb, E. R., & Sons, Inc. Gelbecidine and a process for making the same. 3,551,561, 12-29-70, Cl. 424-119.

A&T Development Corporation: *See—*
Avril, Arthur C., 3,514,870.

Atadan, Erdem M.; and Noren, Charles H., to Du Pont de Nemours, E. I., and Company. Aerated water-bearing inorganic oxidizer salt blasting agent containing dissolved and undissolved carbonaceous fuel. 3,522,117, 7-28-70, Cl. 149-60.

Ataka, Takeshi: *See—*
Murata, Tomoji; Nomura, Keiichi; Ataka, Takeshi; and Kubota, Isamu,3,520,598.

Atake, Takeshi; Sekida, Minoru; and Tenkumo, Shohei, to Minolta Camera Kabushiki Kaisha. Camera capable of carrying an interchangeable lens assembly. 3,502,014, 3-24-70, Cl. 95-53.

Atalla, Martin M., to Hewlett-Packard Company. Current control in bulk negative conductance materials. 3,531,698, 9-29-70, Cl. 317-235.

Atchey, George L. Portable collapsible scaffold. 3,529,694, 9-22-70, Cl. 182-2.

Atchison, Charles: *See—*
Engel, William K., 3,522,713.

Atchison, Kenneth A.: *See—*
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Engle, Thomas J.; Kirchner, Ronald P.; and Atchison, Kenneth,3,530,553.

Atco products Incorporated: *See—*
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Ateliers de Constructions Electriques de Charleroi (ACEC): *See—*
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Ateliers de Constructions Electriques de Charleroi (ACEC), Societe Anonyme: *See—*
Brousmiche, Roger A.H., 3,514,531.
Devos, Francis Marie Robert, 3,523,394.
Durant, Henri, 3,507,368.
Dutilloeil, Jacques; and Claes, Joseph, 3,518,452.
Gervais, Jean, 3,524,034.

Ateliers de Constructions Electriques de Charleroi (ACEC) Societe Anonyone: *See—*
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Ateliers de Constructions Electriques de Charleroi (ACEC): *See—*
Rouet, Paul O. C., 3,501,239.
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Ateliers de Constructions Mecaniques de Vevey S.A.: *See—*
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Ateliers de Constructions Mecaniques et de Chaudronnerie Corpet Louvet & Cie: *See—*
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Ateliers de Constructions Mecaniques et de Chaudromerie Corpet-Louvet & Cie: *See—*
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Ateliers de la Motobecane: *See—*
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Ateliers de la Motobecane, Societe Anonyme: *See—*
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Ateliers des Charmilles S.A.: *See—*
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Ateliers Heuze, Malevez et Simon Reunis Societe Anonyme: *See—*
Dryon, Jacques Max Charles, 3,515,020.
Dryon, Jacques Max Charles, 3,517,869.

Athanas, Nicholas George: *See—*
Granatek, Alphonse Peter; Nunning, Bernard Charles; Athanas, Nicholas George; Dana, Robert Lewis; Granatek, Edmund Stanley; and Daoust, Raymond George,3,549,746.

Athanas, Terry G.; and Griswold, David M., to RCA Corporation. Ion bombardment of insulated gate semiconductor devices. 3,540,925, 11-17-70, Cl. 117-217.

Athena Controls, Incorporated: *See—*
Evalds, Egils; and Brennan, Theodore J., 3,495,777.
Evalds, Egils, 3,512,077.

Atherholt, Charles H. Anthropometric apparatus. 3,520,293, 7-14-70, Cl. 128-2.

Atherton, Alfred A., 1/3 each to Overall, John B., and Privett, John A. Collapsible display bin. 3,494,498, 2-10-70, Cl. 217-33.

Atherton, James G.; Nemeth, Harold C.; and Miller, Eugene J., Jr., to Armour Industrial Chemical Company. Lime soap dispersant. 3,528,923, 9-15-70, Cl. 252-121.

Atherton, James G.; and Wagner, Warren A., to Armour Industrial Chemical Company. Protective polish. 3,497,365, 2-24-70, Cl. 106-8.

Atherton, James G.; and Wagner, Warren A., to Armour Industrial Chemical Company, mesne. Protective polish. 3,551,168, 12-29-70, Cl. 106-8.

Athey, Roy L.: *See—*
Moore, Joseph B.; and Athey, Roy L.,3,519,503.

Atichison, Robert E.; Lutolf, Robert E.; and Magee, Edward F., to Singer-General Precision, Inc. Apparatus for the digital generation of acoustic waveforms. 3,529,086, 9-15-70, Cl. 179-1.

Atkarsky, Anatoly Alexandrovich: *See—*
Ashratova, Sofia Kemalevna; Atkarsky, Anatoly Alexandrovich; Lapshin, Vladimir Pavlovich; Novikov, Vladimir Sergeevich; Dovalgo, Yan Iosifovich; Basova, Ljudmila Alexandrovna; Bogdanov, Viktor Alexandrovich; Kamanin, Mikhail Andreevich; and Khanin, Boris Grigorievich,3,518,850.

Atkey, Eric N.; Bauermeister, Walter K.; and Lambert, Willis R., to Boeing Company, The. System for indicating gas turbine engine power output control parameter limits. 3,538,760, 11-10-70, Cl. 73-117.4

Atkin, Sydney: *See—*
Strelzoff, Samuel; Warshaw, Abe; Villiers-Fisher, John F.; and Atkin, Sydney,3,518,073.

Atkins, Bobby Leroy, to Dow Chemical Company, The. Laminated glass structures and method therefor. 3,488,715, 1-6-70, Cl. 161-203.

Atkins, Carl E., to Wagner Electric Corporation. Single touch capacity switch. 3,492,542, 1-27-70, Cl. 317-146.

Atkins, Carl E., to Wagner Electric Corporation. Thread end detector. 3,500,374, 3-10-70, Cl. 340-259.

Atkins, Carl E., to Wagner Electric Corporation. Semiconductor switching circuit. 3,508,120, 4-21-70, Cl. 317-148.5

Atkins, Carl E., to Wagner Electric Corporation. Thread end detector. 3,551,753, 12-29-70, Cl. 317-146.

Atkins, John Harry Clapham, to Baker Perkin, Inc. Moulding apparatus. 3,541,974, 11-24-70, Cl. 107-8.

Atkins, Lawrence S.: *See—*
Kalbfeld, Jack W., 3,490,465.

Atkins, Temple H. Product and waste disposal carrier for barbecue ovens. 3,498,211, 3-3-70, Cl. 99-443.

Atkins, Thomas M.: *See—*
Jones, Malcolm D.; and Atkins, Thomas M.,3,541,368.

Atkins, Walter J.: *See—*
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Atkins, William R., to RCA Corporation. Recording apparatus with plural independent record-reproduce devices. 3,497,223, 2-24-70, Cl. 274-20.

Atkinson, Eulas R.: *See—*
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Atkinson, Eulas R., to ACF Industries, Incorporated. Railway trailer hitch with rigidizing mechanism. 3,490,723, 1-20-70, Cl. 248-119.

Atkinson, Eulas R.; and Stewart, Joseph T., Jr., to ACF Industries, Incorporated. Valve. 3,508,738, 4-28-70, Cl. 251-315.

Atkinson, Everett J.: *See—*
Antoszewski, Walter J.; and Atkinson, Everett J.,3,493,096.

Atkinson, Howard R., to Standard Kollsman Industries Inc. Heater and air conditioning switch. 3,504,140, 3-31-70, Cl. 200-16.

Atkinson, Norman Lewis; and Bartholomew, Ronald Alfred, to Otis Elevator Company. Entrance frames for door entrances. 3,535,837, 10-27-70, Cl. 52-30.

Atkinson, Robert Dennis: *See—*
Woolley, Eric Maurice; Wright, George; Crisp, Roy; and Atkinson, Robert Dennis,3,545,410.

Atkinson, Robert H. Political compaign game apparatus. 3,545,762, 12-8-70, Cl. 273-134.

Atkinson, Robert P., to General Motors Corporation. Bearing lubrication. 3,528,711, 9-15-70, Cl. 308-187.

Atkinson, Wallace E., to Long Manufacturing Company, Inc. Combined latch and lock structure. 3,527,067, 9-8-70, Cl. 70-71.

Atkinson, William G., to Somerville Industries Limited. Folded blank carton with handle bodily shiftable vertically. 3,515,335, 6-2-70, Cl. 229-52.

Atkinson, William G., to Somerville Industries Limited. End structure for an end-loading carton having a divider. 3,531,042, 9-29-70, Cl. 229-37.

Atkinson, William T.: *See—*
Calvert, Francis E.; and Atkinson, William T.,3,498,794.

Atkinson, William T. Meat-like protein food product. 3,488,770, 1-6-70, Cl. 99-17.

Atlantic Conveying Equipment Limited: *See—*
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Atlantic Design & Development Corporation: *See—*
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Atlantic Products Corporation: *See—*
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Atlantic Richfield Company: *See—*
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Aristoff, Eugene; and Sauer, Richard W., 3,522,325.
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Barnes, Robert L.; Dinsmore, Robert L.; and Steffgen, Frederick W., 3,527,693.
Bichard, John A.; and Bowman, Clement W., 3,522,168.
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Bonetti, Giovanni A.; Rosenthal, Rudolph; and Shubkin, Ronald L., 3,494,924.
Borchert, Alfred E.; and Capaldi, Eugene C., 3,536,732.
Burk, Emmett H., Jr.; and Carlos, Donald D., 3,544,583.
Capaldi, Eugene C.; Leum, Leonard N.; and Shalit, Harold, 3,489,817.
Cleary, James M.; Kern, Loyd R.; and Perkins, Thomas K., 3,496,902.
Clough, Thomas J., 3,539,603.
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Connor, James E., Jr.; D'Alessandro, Alfred F.; and Shalit, Harold, 3,544,376.
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Gower, Howard D.; Gower, Bob G.; and Young, David W., 3,527,726.
Gzemski, Felix C.; and Taylor, Robert C., 3,518,101.
Johnson, Walter H., Jr.; and Pritchett, William C., 3,515,871.
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Jubin, John C., Jr.; and Becker, Matthew L., 3,537,818.
Kremer, Charles J., 3,492,258.
Lehman, Kenneth A., 3,528,497.
Ludlam, Leslie L.; Skripek, Milan; and Whitehead, Kenneth E., 3,503,867.
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Mitchell, Maurice M., Jr.; and Tomezsko, Edward S. J., 3,505,423.
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Pritchett, William C.; and Calkins, Ray L., 3,514,750.
Rosenthal, Rudolph, 3,510,538.
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Rowley, Paul Robert, 3,496,999.
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Sheng, Ming Nan; and Zajacek, John G., 3,510,537.
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Skripek, Milan; Ludlam, Leslie L.; Whitehead, Kenneth E.; and Kling, Nelson G., 3,503,866.
Tabor, Wallace F.; and Williamson, Paul M., 3,549,533.
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Van De Velde, John; and Kosonen, Leonard D., 3,550,780.
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Woods, John P.; Dransfield, Clifford D.; and Barta, Henry R., 3,501,756.
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Atlantic Richfield Company, The: *See—*
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Atlantic Richfield Corporation: *See—*
Bowman, Clement W., 3,521,755.
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Atlantic Richfield Corporation: *See—*
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Atlas Bolt & Screw Company, The: *See—*
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Atlas Chemical Industries, Inc.: *See—*
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Brandner, John David; and Stockburger, George Joseph, 3,499,917.
Capik, Robert J.; and Wright, Leon W., 3,538,019.
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Galvin, Thomas J.; and Black, Frank S., 3,539,613.
Janoski, Florian B., 3,538,414.
Kellner, Hans J., 3,536,816.
Knightly, William H.; and Lensack, Gabriel P., 3,547,655.
Lawrence, Joseph W., 3,491,140.
Martin, Graham D., 3,517,616.
Miller, Paul H., 3,537,399.
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Atlas Copco Aktiebolag: *See—*
Attebo, Kurt Anders Gustav, 3,506,075.
Attebo, Kurt Anders Gustav, 3,535,985.
Ekstrom, Gosta Ivar; and Blomberg, Jarl Joel, 3,525,531.
Ekwall, Carl Gosta Bernhard, 3,533,477.
Eriksson, Sven-Erik Nore, 3,532,241.
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Kimber, Erich Voldemar, 3,523,336.
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Magnusson, Karl August Valdemar; and Liedberg, Kurt Herman, 3,496,958.

Atlas Copco Aktiebolag: *See—*
Morfeldt, Carl-Olof Oskar, 3,507,121.

Atlas Copco MCT AB: *See—*
Lauber, Ernst, 3,523,426.

Atlas, Gerald D. Movable floating boat anchorage. 3,521,588, 7-21-70, Cl. 114-0.5

Atlas Hoist & Body Incorporated: *See—*
Richler, Max M., 3,499,678.

Atlas Pacific Engineering Company: *See—*
Ellis, Robert G., 3,499,687.

Atlas Spokane, Inc.: *See—*
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Atlas Tool & Manufacturing Company: *See—*
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Atlas-Mak Maschinenbau G.m.b.H.: *See—*
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Atlas-Rand Corporation: *See—*
Kaess, Gary, 3,519,342.

Atlee, John S.Men's underwear. 3,517,666, 6-30-70, Cl. 128-159.

Atmos-Tech Corporation: *See—*
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Atom Auto Pecas LTDA: *See—*
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Atomic Energy of Canada Limited: *See—*
Abraham, Stanley Charles; and Moeck, Edward Otto, 3,531,050.
Bayly, John G.; and Rhodes, Cecil, 3,524,351.
Duerksen, John Hugo; Bancroft, Allan Robertson; Hatcher, Stanley Ronald; Boulton, John; and Charlesworth, Donald Hector, 3,531,538.
Fraser, John S., 3,500,098.
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Kirkpatrick, William W.; and Masefield, John, 3,496,362.
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Masefield, John; Rice, Frank Graham; Anderson, Murray B.; and Curnow, Eric K., 3,532,888.
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Atomic Power Constructions Limited: *See—*
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Coles, Harold John, 3,545,534.

Atomic Power Development Associates, Inc.: *See—*
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Nims, John B., Jr., 3,515,638.
Vilinskas, Peter, 3,529,459.
Ziniuk, Michael A., 3,488,584.

Atomic Power Development Associates, Incorporated: *See—*
Yevick, John G.; and Brill, Edward F., 3,488,253.
Yevick, John G.; and Brill, Edward F., 3,503,849.
Yevick, John G.; and Brill, Edward F., 3,506,540.

Atrubin, Allan J.: *See—*
Andrews, Douglas R.; Atrubin, Allan J.; Baumgartner, Richard J.; Bond, Milton F.; and Hu, Kuang-Chi,3,517,387.

Atsumi, Katsuya, to Akai Electric Company Limited. Recording and bias magnet assembly with spacing elements for tape recorders. 3,496,305, 2-17-70, Cl. 179-100.2

Atsumi, Muneo; and Okamura, Shiro, to Nippon Electric Company Limited. Magnetic tape means for continuous recording along a plurality of tracks on an endless tape. 3,495,047, 2-10-70, Cl. 179-100.2

Atsumi, Tomoo, to Matsushita Electric Industrial Co., Ltd. Autochanger. 3,549,153, 12-22-70, Cl. 274-10.

Atsumi, Toshio: *See—*
Yamamoto, Hisao; Nakamura, Yasushi; Atsumi, Toshio; Nakao, Masaru; Kobayashi, Tsuyoshi; Saito, Chiharu; and Awata, Hiroshi,3,541,112.

Attaway, Willie L. Latch mechanism. 3,539,213, 11-10-70, Cl. 292-127.

Attebery, Jerry M.: *See—*
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Attebery, Walter Noland; and Patterson, Thomas Andrew, to Condor Helicopters and Aviation, Inc. Television camera mounting structure for helicopters used in aerial survey work. 3,523,660, 8-11-70, Cl. 244-17.11

Attebo, Kurt Anders Gustav, to Atlas Copco Aktiebolag. Drill string element transfer mechanism. 3,506,075, 4-14-70, Cl. 175-52.

Attebo, Kurt Anders Gustav, to Atlas Copco Aktiebolag. Feed arrangements in rock drilling machines. 3,535,985, 10-27-70, Cl. 92-137.

Atterholt, Lawrence E., to Hobart Brothers Company. Generator voltage regulator utilizing time ratio control. 3,525,924, 8-25-70, Cl. 322-28.

Atteridge, David G.: *See—*
Sinizer, David I.; Toy, Albert; Atteridge, David G.; and Fanelli, Louis H.,3,537,170.

Attermeyer, Lawrence A., to Cincinnati Milling Machine Co., The. Connector. 3,512,817, 5-19-70, Cl. 287-103.

Attermeyer, Lawrence A., to Cincinnati Milling Machine Co., The. Way plug installation. 3,523,851, 8-11-70, Cl. 156-344.

Attinello, John S. Wide latitude color process. 3,493,370, 2-3-70, Cl. 96-30.

Attore, Lawrence O.: *See—*
Meehan, Clarence L.; and Attore, Lawrence O.,3,536,281.

Attridge, Curtis C.; and Wright, Major. Automatic film processing device. 3,515,050, 6-2-70, Cl. 95-89.

Attwenger, Wolfgang: *See—*
Duftschmid, Klaus E.; Steidl, Johannes; Patzelt, Rupert; and Attwenger, Wolfgang,3,497,693.

Attwood, Brian Ernest, to U.S. Philips Corporation, mesne. Power supply regulator and amplifier circuits. 3,493,685, 2-3-70, Cl. 179-15.

Attwood, John G., to Union Special Machine Company. Method and apparatus for bonding thermoplastic sheet materials. 3,505,136, 4-7-70, Cl. 156-73.

Attwood, John G.: *See—*
Matias, James J.; and Attwood, John G.,3,547,738.

Attwood, Stanley W.; and Kline, Arthur J., Jr., to Motorola, Inc. Dual-mode range acquisition system. 3,530,467, 9-22-70, Cl. 343-13.

ATV, Inc.: *See—*
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Atwater, Wayne G., to Triax Company, The. Automatic warehousing system with transfer mechanism. 3,516,558, 6-23-70, Cl. 214-16.4

Atwater, Wayne G., to Triax Company, The. Storage and order picking system. 3,526,327, 9-1-70, Cl. 214-16.4

Atwater-Strong Company, Inc., The: *See—*
Rinker, Carl G., 3,512,898.

Atwell, Charles W. Bedding composition and packaging for worms. 3,499,420, 3-10-70, Cl. 119-1.

Atwell, Everett C., to Burlington Industries, Inc. Fabric and method of producing same. 3,529,865, 9-22-70, Cl. 297-388.

Atwell, William H., to Dow Corning Corporation. Silacyclopentenes and a method for making same. 3,509,191, 4-28-70, Cl. 260-448.2

Atwood & Morrill Co.: *See—*
Hose, Alexander V.; and Prescott, Norman F., 3,531,078.

Atwood, David P.: *See—*
Anderson, Victor F.; and Atwood, David P.,3,501,814.

Atwood, Lamar T., to Southworth Machine Company. Method of register feeding. 3,529,709, 9-22-70, Cl. 198-26.

Atwood, Lamar T., to Southworth Machine Company. Method for guiding while longitudinally conveying a ream of single sheets of paper. 3,533,496, 10-13-70, Cl. 198-34.

Atwood Vacuum Machine Company: *See—*
Marchione, Joseph H., 3,550,185.
Pfluger, Richard T.; and Null, Kenneth E., 3,520,474.
Ploughman, Leonard K., 3,511,526.

Au, Tin Yam, to Du Pont de Nemours, E. I., and Company. Melt spinning process. 3,504,078, 3-31-70, Cl. 264-210.

Aubel, Pierre: *See—*
Desrayaud, Andre; and Aubel, Pierre,3,508,512.
Moulin, Pierre; and Aubel, Pierre,3,500,025.

Aubert, Georges, to Schlumberger, N., & Cie. Method of and apparatus for preparing sides of meat for boning on an automatic machine. 3,535,732, 10-27-70, Cl. 17-1.

Aubert, Jean. Water-slope system for a movable retention barrier. 3,514,958, 6-2-70, Cl. 61-9.

Aubert, Jean. Closure device applicable to water-slope systems. 3,543,521, 12-1-70, Cl. 61-25.

Aubree, Jack: *See—*
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Aubrey, Donald M. Ventilating hood. 3,500,740, 3-17-70, Cl. 98-115.

Aubrey, Donald M., to Aubrey Manufacturing Inc. Control for continuously oscillating apparatus. 3,530,268, 9-22-70, Cl. 200-153.

Aubrey, Jerry E., to United States of America, Navy. Underwater explosive firing mechanism. 3,532,057, 10-6-70, Cl. 102-81.

Aubrey Manufacturing Inc.: *See—*
Aubrey, Donald M., 3,530,268.

Aubrey, Norman E., to Monsanto Company. ABS graft polyblends containing two graft polymers having different particle sizes. 3,509,237, 4-28-70, Cl. 260-876.

Aubrey, Norman E.; and Jastrzebski, Michael B., to Monsanto Company. ABS graft polyblends containing two graft polymers with different degrees of grafting. 3,509,238, 4-28-70, Cl. 260-876.

Aubrey, William M.; Ketter, Richard P.; and Dominguez, Ezekiel C., to Bethlehem Steel Corporation. Method of indurating balled concentrates containing iron ore. 3,545,957, 12-8-70, Cl. 75-3.

Auburn Plastics, Inc.: *See—*
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Auchapt, Pierre; and Brun, Andre, to Commissariat a l'Energie Atomique. Constant debit gauging wheel. 3,546,934, 12-15-70, Cl. 73-194.

Auchapt, Rene; and Jullien, Gerard Michel Rene, to L'Equipement General Electrique 'Egelec'. Low-voltage electric circuit-breaker. 3,538,476, 11-3-70, Cl. 337-62.

Auciello, Michael A.: *See—*
Auciello, Ralph J.; and Auciello, Michael A.,3,490,557.

Auciello, Ralph J.; and Auciello, Michael A. Adjustable ladder construction for fire escape platforms and the like. 3,490,557, 1-20-70, Cl. 182-78.

Auckenthaler, Robert, to Schweizerische Industrie-Gesellschaft. Device for adjusting the level of a container's contents to a predetermined height and for creasing the container's sides along the eventual folding lines. 3,501,891, 3-24-70, Cl. 53-124.

Audeval, George Marceau, to Integrated Lighting Limited. Louver construction. 3,544,787, 12-1-70, Cl. 240-78.

Audichron Company, The: *See—*
Smith, Leary W., 3,488,443.
Smith, Leary W., 3,535,465.

Audio Devices, Inc.: *See—*
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Audistronics Corporation: *See—*
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Audouze, Bernard; and Labat, Yves, to Societe Nationale des Petroles d'Aquitaine. Process for the preparation of polythioether diols. 3,519,689, 7-7-70, Cl. 260-609.

Audouze, Bernard; Labat, Yves; and Dereuddre, Pierre, to Societe Nationale des Petroles d'Aquitaine. Preparation of polythioether dithiols. 3,534,108, 10-13-70, Cl. 260-609.

Audouze, Bernard: *See—*
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Audran, Roger G. L.; Delest, Philippe F.; and Vige, Maurice, to Eastman Kodak Company. Ionizing radiation sensitive photographic element comprising foamed gelatin-silver halide emulsion. 3,516,834, 6-23-70, Cl. 96-114.

Auebach Corporation for Information Sciences: *See—*
Affel, Herman A., Jr.; Eisenberg, Daniel E.; Hughes, Arthur D.; Schmitt, William F.; and Kerfoot, Franklin W., Jr., 3,505,646.

Auer, Eberhard; Dietrich, Walter; and Ortmann, Christian, to International Standard Electric Corporation. Optical scanning device having plural illuminating devices and a light sink for each such device to reduce the effect of the devices which are not instantaneously in use. 3,522,438, 8-4-70, Cl. 250-219.

Auer, John H., Jr.; and Ross, Lyle A., to General Signal Corporation. Digital control system for traffic signals. 3,528,054, 9-8-70, Cl. 340-35.

Auer, Louis J. Filler tube construction for gasoline tank. 3,506,155, 4-14-70, Cl. 220-86.

Auer, Lucijan, to U.S. Philips Corporation, mesne. FET Oscillator with constant current source for frequency stabilization. 3,534,294, 10-13-70, Cl. 331-117.

Auer Register Company, The: *See—*
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AUER, Societe Francaise d'Incandescence Par le Gaz:*See—*
Moufflet, Claude J., 3,506,384.

Auer, Werner: *See—*
Schultz, Peter; and Auer, Werner,3,518,771.

Auerbach, Guenther; Benz, Jakob; and Wehrli, Walter, to Sandoz Ltd., also known as Sandoz A.G. Monoazo pyrimidyl containing dyes. 3,518,246, 6-30-70, Cl. 260-154.

Auerbach, Seymour. Lighting fixture diffuser assembly. 3,524,981, 8-18-70, Cl. 240-128.

Auerswald, Walter: *See—*
Siewerth, Gerhard; and Auerswald, Walter,3,526,076.

Aufdermarsh, Carl Albert, Jr., to Du Pont de Nemours, E. I., and Company. Novel cis-polychloroprene butadienyltrialkyltin intermediates, and process for preparing said cis- polymer and intermediate. 3,536,688, 10-27-70, Cl. 260-92.3

Aufhauser, Alfred. Oral administration of a pill tablet or capsule. 3,536,074, 10-27-70, Cl. 128-222.

Aufill, Charles B.: *See—*
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Aufzuege AG Schaffhausen: *See—*
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Augat, Inc.: *See—*
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Auge, Peter, to Ce De Candy Inc. Spring actuated projectile projecting device. 3,515,111, 6-2-70, Cl. 124-16.

Augenblick, Harry A.; and Vogler, John G., to Microlab/FXR. Harmonic communication and navigation system. 3,518,546, 6-30-70, Cl. 325-8.

Augenstein, Paul M.: *See—*
Hollander, Milton B.; and Augenstein, Paul M.,3,545,435.

Auger, Mederic E., Jr., to General Electric Company. Electronic graticule for cathode ray tubes. 3,500,115, 3-10-70, Cl. 315-18.

Auger, Mederic E., Jr., to General Electric Company. Pulse generating circuit utilizing avalanche firing of series connected SCRS. 3,513,328, 5-19-70, Cl. 307-108.

Auger, Raymond N., to Cutler Controls Inc. Photo-valve. 3,512,452, 5-19-70, Cl. 91-3.

Augstein, Joachim; Austin, William C.; Monro, Alastair M.; and Morgan, Derek H., to Pfizer, Chas., & Co., Inc. 2-Vinyl-1,4-dihydroquinazoline derivatives. 3,519,620, 7-7-70, Cl. 260-240.

Augstein, Joachim; Monro, Alastair M.; and Potter, Geoffrey Wilfred Hassey, to Pfizer, Chas., & Co., Inc.2'-Amino-[spiro-(1,4-benzodioxine-2,1'- cyclopropane)]. 3,532,716, 10-6-70, Cl. 260-340.3

Augus, George, & Company Limited: *See—*
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Halliday, Geoffrey W., 3,504,920.
Halliday, Geoffrey Walton, 3,504,918.

August Bilstein KG: *See—*
de Baan, Johannes Jasper; and Peddinghaus, Carl Ullrich, 3,487,494.

August, Paul. Fuel-air mixture improvement apparatus for carburetors. 3,499,427, 3-10-70, Cl. 123-122.

August, Paul. Transmission. 3,526,305, 9-1-70, Cl. 192-4.

August Sauter KG: *See—*
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August Thyssen-Hutte Aktiengesellschaft: *See—*
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Auguste, Robert D.; and Gensike, Karl H., to Instrumentation Marketing Corporation, mesne. Automatic exposure control for cameras. 3,533,347, 10-13-70, Cl. 95-64.

Auguste, Robert: *See—*
Nemeth, Otto R.; and Auguste, Robert,3,490,835.

Augustin, Eugene H.; Coburn, Kenneth E.; and Greenler, Robert J., to Ford Motor Company. Chamber for the manufacture of float glass with diverging side wall blocks. 3,492,108, 1-27-70, Cl. 65-182.

Augustin, Eugene H.; and Pagan, George J., to Ford Motor Company. Method of cutting glass. 3,520,456, 7-14-70, Cl. 225-2.

Augustin, Eugene H.; and Pagan, George J., to Ford Motor Company. Method of separating pieces of edge trim remaining after the cutting of a glass bracket. 3,520,457, 7-14-70, Cl. 225-2.

Augustin, Eugene H.; and Pagan, George J., to Ford Motor Company. Method of cutting glass. 3,532,259, 10-6-70, Cl. 225-2.

Augustin, Eugene H.; and Pagan, George J., to Ford Motor Company. Method of cutting glass employing vibratory energy. 3,532,260, 10-6-70, Cl. 225-2.

Augustin, Eugene P., to Teledyne, Inc. Microwave polarization switch. 3,517,341, 6-23-70, Cl. 333-21.

Augustine, Larry J.: *See—*
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Auld, Samuel H., to Lear Jet Industries, Inc. Magnetic tape guide means for cartridge player. 3,521,009, 7-21-70, Cl. 179-100.2

Auld, Samuel H., to Lear Jet Industries, Inc. Pinch member for magnetic tape transport. 3,542,303, 11-24-70, Cl. 242-55.19

Auld, Samuel H.: *See—*
Lear, William P.; and Auld, Samuel H.,3,505,486.

Auletta, Don J., to Electronic Communications, Inc. Collapsible helical antenna. 3,524,193, 8-11-70, Cl. 343-895.

Aulhorn, Herbert; and Knabe, Frank Torsten, to International Standard Electric Corporation. Frequency error correcting circuit. 3,502,906, 3-24-70, Cl. 307-237.

Aulick, Burton W., to Halliburton Company. Method for flotation completion for highly deviated wells. 3,526,280, 9-1-70, Cl. 166-285.

Aulicono, Orlando T. Mouth-to-mouth and nose resuscitation device. 3,508,543, 4-28-70, Cl. 128-145.5

Aulik, Robert F.; Cassie, Norman M.; and Taifer, Mark M., to Armour and Company. Sealing fluorocarbon surfaces with an adhesive composition. 3,533,878, 10-13-70, Cl. 156-320.

Aulisa, Gerard D., to Sun Oil Company. Selective coupling apparatus. 3,508,582, 4-28-70, Cl. 137-625.11

Ault, Cyrus F., to Bell Telephone Laboratories, Incorporated. Shift register circuit. 3,508,212, 4-21-70, Cl. 340-173.

Ault, Cyrus F., to Bell Telephone Laboratories, Incorporated. Tape transport for incremental stepping recorder. 3,512,733, 5-19-70, Cl. 242-190.

Ault, Cyrus F., to Bell Telephone Laboratories, Incorporated. Arrangement for comparing two frequencies by alternate comparison with a controllable local frequency. 3,519,929, 7-7-70, Cl. 324-79.

Ault, Cyrus F., to Bell Telephone Laboratories, Incorporated. System for altering the triggering level of a fixed level signal detector. 3,535,551, 10-20-70, Cl. 307-235.

Ault, Cyrus F., to Bell Telephone Laboratories, Incorporated. Verification of magnetic recording. 3,535,704, 10-20-70, Cl. 340-174.1

Ault, Cyrus F.; and Friedman, David, to Bell Telephone Laboratories, Incorporated. Multiple memory synchronizing arrangement. 3,503,058, 3-24-70, Cl. 340-174.1

Ault, Cyrus F.; and Redner, Richard J., to Bell Telephone Laboratories, Incorporated. Position sensor utilizing two parts of serially connected coils. 3,492,670, 1-27-70, Cl. 340-174.1

Ault, Cyrus F.; and Redner, Richard J., to Bell Telephone Laboratories, Incorporated. Selective information recording and erasing circuit. 3,541,573, 11-17-70, Cl. 346-74.

Ault, Eldon F.; Mansell, Ralph E.; and Ruhl, Harry deVere, Jr., to Dow Chemical Company, The. Method for detection of mercury in a helium glow discharge. 3,545,863, 12-8-70, Cl. 356-86.

Aumayer, Hansruedi, to I-T-E Imperial Corporation. High speed three-way valve. 3,548,877, 12-22-70, Cl. 137-625.65

Aumayer, Hansruedi; Jensen, Otto; and Kesselring, Fritz, 1/2 each to I-T-E Imperial Corporation, and Siemens Aktiengesellschaft. Gas blast circuit breaker having series-connected movable nozzle contacts. 3,518,388, 6-30-70, Cl. 200-148.

Aumayer, Hansruedi: *See—*
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Aument, George C.; Radcliffe, Wayne K.; and Fickes, Robert E., to Hamilton Watch Company. Modular type instrument panel. 3,500,130, 3-10-70, Cl. 317-120.

AuMiller, Clyde F., to Barber-Colman Company. Quick acting pipe connector. 3,526,417, 9-1-70, Cl. 285-38.

Aumuller, Walter; Weber, Helmut; Weyer, Rudi; Muth, Karl; and Fauland, Erich, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Benzenesulfonyl-ureas. 3,504,026, 3-31-70, Cl. 260-553.

Aumuller, Walter; Weber, Helmut; Weyer, Rudi; Muth, Karl; Peschke, Wilhelm Ludwig Andreas Richard, deceased (by Peschke, Christel Elisabeth, nee Dryzyga, co-heiress); and Rotzinger, Bruno; curator, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Benzenesulfonyl-ureas with hypoglycemic activity. 3,510,496, 5-5-70, Cl. 260-325.

Aumuller, Walter: *See—*
Weber, Helmut; Aumuller, Walter; Weyer, Rudi; Muth, Karl; and Haack, Erich,3,489,798.
Weber, Helmut; Aumuller, Walter; Weyer, Rudi; Muth, Karl; and Schmidt, Felix Helmut,3,499,026.
Weber, Helmut; Aumuller, Walter; Weyer, Rudi; Muth, Karl; and Schmidt, Felix Helut,3,507,954.
Weber, Helmut; Aumuller, Walter; Weyer, Rudi; Muth, Karl; and Schmidt, Felix Helmut,3,507,961.
Weyer, Rudi; Aumuller, Walter; Weber, Helmut; Muth, Karl; and Heerdt, Ruth,3,494,936.

Aungst, Robert D., to Westinghouse Electric Corporation. Capacitor bank arrangement. 3,534,229, 10-13-70, Cl. 317-99.

Aungst, Robert D., to Westinghouse Electric Corporation. Water tight connector bushing for capacitor units. 3,542,943, 11-24-70, Cl. 174-142.

Aunspach, Dale E., to Fisher Governor Company. Valve with compressible seal means. 3,506,242, 4-14-70, Cl. 251-361.

Auphan, Miche; and Perilhou, Jean, to U.S. Philips Corporation, mesne. Scanning device for a camera. 3,532,037, 10-6-70, Cl. 95-11.

Auphan, Michel, to U.S. Philips Corporation, mesne. Device for the colorimetric analysis of liquids. 3,545,869, 12-8-70, Cl. 356-181.

Auphan, Michel; and Perilhou, Jean, to U.S. Philips Corporation, mesne. Analysing devices for fluid samples. 3,490,876, 1-20-70, Cl. 23-253.

Aupke, Jean A. Suitcase castor mounting. 3,526,921, 9-8-70, Cl. 16-43.

Aupolx, Marcel; and Moisson-Franckhauser, Francois, to Compagnie Generale d'Electricite. Electric cable for polyphase current. 3,502,783, 3-24-70, Cl. 174-15.

Aupolx, Marcel; and Moisson-Franckhauser, Francois, to Compagnie Generale d'Electricite. Cryogenic polyphase cable. 3,515,793, 6-2-70, Cl. 174-13.

Aupolx, Marcel; and Moisson-Franckhauser, Francois, to Compagnie Generale d'Electricite. Electric cable whose length does not vary as a function of temperature. 3,541,221, 11-17-70, Cl. 174-13.

Aupolx, Marcel; and Moisson-Franckhauser, Francois, to Compagnie Generale d'Electricite. Electrical conductor configuration providing length stable with temperature. 3,544,706, 12-1-70, Cl. 174-129.

Aurach, Arthur B.: *See—*
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Aurich, Christoph W.; and Lukes, John A., to Beloit Corporation. Magnetic calender. 3,489,079, 1-13-70, Cl. 100-168.

Aurich, Gunther: *See—*
Nestler, Karl-Georg; Schultheiss, Peter; and Aurich, Gunther,3,499,148.

Aurich, Joachim G.: *See—*
Grobe, Volker; Ulbricht, Joachim; Reichert, Hans W.; Fark, Heinz P. K.; Buchmann, Edeltraud E.; Hertel, Ulrich E. E.; Kopcke, Dieter A. K.; Michaelis, Walter K.; Peter, Eberhard P. H.; Aurich, Joachim G.; Roth, Eberhard W.; Bender, Alfred A.; and Bernhardt, Karl H.,3,520,661.

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Aurora Corporation: *See—*
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Aurora Fahrzegheizungen Konrad G. Schulz KG: *See—*
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aus der Funten, Helmut; and Richtzenhain, Hermann, to Dynamit Nobel Aktiengesellschaft. Unsaturated nitriles containing carbonyl groups and preparation thereof. 3,529,009, 9-15-70, Cl. 260-464.

Ausband, Robert W.; and Tsataros, Anargaros J. Random noise generator having a capsule that is mechanically displaced from its normal locus. 3,534,363, 10-13-70, Cl. 340-384.

Ausfeld, Rudolf Arthur: *See—*
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Ausnit, Steven: *See—*
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Ausnit, Steven. Method and apparatus for forming continuous plastic tubing with separable pressure reclosable fastener strips attached to the surface thereof. 3,532,571, 10-6-70, Cl. 156-91.

Ausnit, Steven. Fastener module. 3,537,153, 11-3-70, Cl. 24-201.

Staller, Karel J.; and Ausnit, Steven,3,543,343.

Austen, Alan Ewart Walter, to C.A.V. Limited. Liquid fuel pumping apparatus. 3,513,475, 5-19-70, Cl. 417-252.

Austen, Herman E., to National Cash Register Company, The. Method of making a magnetic transducer set. 3,516,152, 6-23-70, Cl. 29-603.

Austen, Herman E., to National Cash Register Company, The. Electrodeposition of constant-composition thin films. 3,525,677, 8-25-70, Cl. 204-43.

Austen, Jorg: *See—*
Reich, Hans; Austen, Jorg; and Kunz, Emil,3,504,775.

Austenal Europa, Inc.: *See—*
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Austgen, Kenneth J., to Pullman Incorporated. Container bracket arrangement for flat deck railway car. 3,491,703, 1-27-70, Cl. 105-366.

Austin and Mead: *See—*
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Austin, Arthur C.: *See—*
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Austin, Arthur L., to Wyandotte Chemicals Corporation. Polyurethane foams prepared from stabilized polyether polyols. 3,494,880, 2-10-70, Cl. 260-2.5

Austin, Arthur L.: *See—*
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Austin, Clive J., to Austin, Luther, and Sons Limited. Sports shoes. 3,487,563, 1-6-70, Cl. 36-67.

Austin, Clive Jonathan: *See—*
Austin, Marcus Luther; and Austin, Clive Jonathan,3,543,316.

Austin Electronics, Inc.: *See—*
Powell, Austen V., 3,515,973.

Austin, Ethel L. Covered figure toy with eyes projecting through the cover. 3,501,862, 3-24-70, Cl. 46-158.

Austin, Glenn M.: *See—*
Seiferth, Oscar E.; Austin, Glenn M.; and Gifford, Maurice J.,3,498,018.

Austin, Harold J. Concrete vibrating and finishing machine. 3,515,042, 6-2-70, Cl. 94-48.

Austin, Harold J. Concrete compacting and finishing apparatus. 3,515,043, 6-2-70, Cl. 94-48.

Austin, Harold J. Concrete finishing apparatus. 3,547,014, 12-15-70, Cl. 94-45.

Austin, Harry W., to Mine Safety Appliances Company. Adjustable headband. 3,500,474, 3-17-70, Cl. 2-3.

Austin, Howard B.: *See—*
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Austin Hoy and Company Limited: *See—*
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Austin, Irving G.; Bridgnell, David G.; and Kinsell, Robert C., to Garrett Corporation, The. Three fluid heat exchanger. 3,537,513, 11-3-70, Cl. 165-70.

Austin, James E., to Texas Instruments, Incorporated. Solid state modular microwave system and cooling means therefor. 3,528,492, 9-15-70, Cl. 165-80.

Austin, James: *See—*
Mustian, William R., Jr.; Austin, James; and Ellis, John D.,3,522,833.

Austin, John D.; and Baney, Ronald H., to Dow Corning Corporation. Organopolysiloxanes stabilized with tetracyanoethylene. 3,542,732, 11-24-70, Cl. 260-45.9

Austin, John Frankle: *See—*
Baker, Chester L.; and Austin, John Frankle,3,505,299.

Austin, Kenneth A., to Avco Corporation. Gas turbine accessory power drive unit. 3,514,945, 6-2-70, Cl. 60-39.16

Austin, Kenneth William Bertram; and Bird, Albert Eric, to Becham Group Limited. Electrolytic process for preparing aminopenicillins. 3,505,187, 4-7-70, Cl. 204-74.

Austin, Leonard E. Coin display device. 3,550,811, 12-29-70, Cl. 221-262.

Austin, Lowell W.: *See—*
Smith, Edwin J.; Beale, Louis C., Jr.; and Austin, Lowell W.,3,526,486.

Austin, Lowell W., to National Steel Corporation. Method of preparing metal coated metallic substrates. 3,503,775, 3-31-70, Cl. 117-17.

Austin, Lowell W.; and Brubaker, Charles A., to National Steel Corporation. Method of pretreating ferrous metal substrates prior to electroplating with an aluminum-containing coating. 3,531,380, 9-29-70, Cl. 204-34.

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Avis, John M.; and Dorman, Hugh H., to Case, J. I., Company. Assembly for laterally shifting and pivoting a mast of a lift truck. 3,490,633, 1-20-70, Cl. 214-672.

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Avis, Kenneth E.: *See*—
Hamilton, Arthur R., 3,512,539.

Avis, Leonard E., to Teledyne, Inc., mesne. Method of bonding a semi-conductor to a metal conductor and resultant product. 3,494,803, 2-10-70, Cl. 136-237.

Avis, Paul R.; Bekoog, Jurrianus; Cherdron, Harald H. O.; Dijkstra, Tette J.; Ohse, Hans H. W.; and Palm, Richard A., to Shell Oil Company. Flame-resistant polyepoxide compositions. 3,501,436, 3-17-70, Cl. 260-37.

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Avisun Corporation: *See*—
Casey, John A.; Jezl, James L.; and Hague, Louise D., 3,496,128.
Jezl, James L.; Khelghatian, Habet M.; and Knaack, Donald F., 3,527,845.
Poppe, Wassily; and Khelghatian, Habet M., 3,499,881.
Port, Morton I.; and Schwartz, Bernard L., 3,492,389.
Schwartz, Harold A., 3,535,184.

Avizienis, Algirdas A., to United States of America, National Aeronautics and Space Administration, mesne. Self testing and repairing computer. 3,517,171, 6-23-70, Cl. 235-153.

AVM Corporation: *See*—
Carlson, Marshall A.; and Nelson, Norbert L., 3,540,639.
Johnson, Jesse R., 3,506,239.
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Moberg, Jerome E., 3,528,096.
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Moldovan, Michael T., Jr., 3,539,776.
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Avon, George L.: *See*—
Ingruber, Otto V.; Cranford, William B.; Avon, George L.; Watson, James K.; and Neal, Jack L.,3,525,667.

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Avrea, Walter C., to Saf-Gard Products, Inc. Pressured liquid cooling system. 3,499,481, 3-10-70, Cl. 165-11.

Avrea, Walter C., to Saf-Gard Products, Inc. Flow guard for manifold. 3,530,839, 9-29-70, Cl. 123-41.15

Avril, Arthur C., to A&T Development Corporation. Drying apparatus. 3,514,870, 6-2-70, Cl. 34-108.

Avril, Arthur C., to A & T Development Corporation. Sealing assembly for dry blending equipment. 3,532,328, 10-6-70, Cl. 259-150.

Avsan, Oleg; Hemdal, Goran Anders Henrik; Johnson, Torbjorn Konrad; Noren, Lars-Olof; and Svensson, Ake Bertil Fredrik, to Telefonaktiebolaget L M Ericsson. Arrangement in computers for controlling a plant consisting of a plurality of co-operating means. 3,503,048, 3-24-70, Cl. 340-172.5

Avtona S.A.: *See*—
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Haner, Lambert; and Sarver, Forrest D., 3,534,261.
Haner, Lambert; and Sayre, Robert Henry, 3,537,002.
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Awata, Hiroshi: *See*—
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Awazu, Kenzo; and Matsunaga, Kazu, to Mitsubishi Denki Kabushiki Kaisha. Phosphors and process of producing the same. 3,513,346, 5-19-70, Cl. 313-108.

Awcock, Mervyn Leslie: *See*—
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Aweimrine, Kamal Y. Inertia lock reel. 3,511,450, 5-12-70, Cl. 242-107.4

Axel, Edwin: *See*—
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Axelrod, Millard W.: *See*—
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Axelrod, Norman N. Vacuum monochromator having means for scanning the spectrum and maintaining a constant angle of incidence to the grating. 3,495,909, 2-17-70, Cl. 356-100.

Axelson, Thomas A., to United States of America, Air Force. Trip line sensor and release mechanism for munition. 3,498,219, 3-3-70, Cl. 102-8.

Axelsson, Nils Rune; and Wretemark, Sven Gunnar, to Telefonaktiebolaget L M Ericsson. Cable hanger for above-ground cables. 3,520,504, 7-14-70, Cl. 248-58.

Axen, Rolf E. A. V.; Porath, Jerker O.; and Wide, Leif E., to Pharmacia AB. Method for determining vitamin B_{12} and reagent therefor. 3,505,019, 4-7-70, Cl. 23-230.

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Axlander, Axel Nore Alexander. Heat accumulation apparatus for heat emitting units at temperatures above 100°C. 3,543,001, 11-24-70, Cl. 219-326.

Axthammer, Ludwig, to Fichtel & Sachs A.G. Extendable support column. 3,503,472, 3-31-70, Cl. 188-86.

Ayala, Carl; Glass, Marvin I.; and Kripak, Leonid, to Glass, Marvin, & Associates. Doll sound mechanism. 3,494,323, 2-10-70, Cl. 116-139.

Aydt, Marion L. Limb support. 3,528,413, 9-15-70, Cl. 128-88.

Ayer, James E., to United States of America, Atomic Energy Commission. Method of making combination fuel rods. 3,517,431, 6-30-70, Cl. 29-420.5

Ayers, Buell O.: *See*—
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Loyd, Robert J.; and Ayers, Buell O.,3,537,297.

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Ayers, Buell O., to Phillips Petroleum Company. Chromatographic analysis method and apparatus. 3,490,202, 1-20-70, Cl. 55-67.

Ayers, Buell O., to Phillips Petroleum Company. Variable impedance vortex diode. 3,521,657, 7-28-70, Cl. 137-81.5

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Ayers, David T., Jr., to Kelsey-Hayes Company. Trailer safety brake construction. 3,507,541, 4-21-70, Cl. 303-7.

Ayers, David T., Jr., to Kelsey-Hayes Company. Drum brake with automatic adjuster. 3,526,301, 9-1-70, Cl. 188-79.5

Ayers, David T.: *See*—
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Ayers, George W.; and Krewer, William A., to Union Oil Company of California. Purification of sulfonic acids. 3,496,224, 2-17-70, Cl. 260-505.

Ayers, James E., to Dow Chemical Company, The. Electromotive sensing device. 3,501,392, 3-17-70, Cl. 204-195.

Ayers, Maurice D., to Metal Innovations, Inc. Production of powder, strip and other metal products from refined molten metal. 3,502,446, 3-24-70, Cl. 29-182.5

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Ayers, Robert C., Jr.: *See*—
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Ayerst, McKenna & Harrison, Limited: *See*—
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Aylesworth, Robert D.; Hilton, Thomas B.; Froehlich, Philip A.; and Rodenberg, Herbert G., to Emery Industries, Inc. Polyester plasticizer for polyvinyl chloride fabrics. 3,501,554, 3-17-70, Cl. 260-873.

Ayling, Anthony John, to Vero Electronics Limited. Frames for accommodating circuit cards or module frames. 3,511,385, 5-12-70, Cl. 211-41.

Aylott, David Howard, to Eylure Limited. Apparatus for cleaning artificial eyelashes. 3,491,775, 1-27-70, Cl. 132-85.

Aylott, David Howard, to Eylure Limited. Apparatus for cleaning artificial eyelashes. 3,504,682, 4-7-70, Cl. 132-85.

Ayotte, Ronald D.; Fortin, Conrad M.; and Waldo, Craig T., to Sylvania Electric Products, Inc. High pressure electric discharge device and cathode. 3,548,242, 12-15-70, Cl. 313-184.

Ayoub, Alfred. Method of chromizing electroconductive element. 3,492,156, 1-27-70, Cl. 117-212.

Ayoub, Joseph A. Garment and sleeve construction. 3,508,279, 4-28-70, Cl. 2-113.

Ayoub, Philip T. Measuring device for sideburns. 3,491,450, 1-27-70, Cl. 33-174.

Ayre, James E. Cytological instrument. 3,540,432, 11-17-70, Cl. 128-2.

Ayres, Elwyn C., to Phillips Petroleum Company. Differential release paper. 3,503,782, 3-31-70, Cl. 117-45.

Ayres, John E., to Acu-Tech Corporation. Dispenser pump. 3,489,322, 1-13-70, Cl. 222-341.

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Ayres, Waldemar A. Laser surgical knife equipment. 3,528,424, 9-15-70, Cl. 128-303.1

Ayres, Waldemar A., to Becton, Dickinson and Company. Color conversion system for X-rays. 3,541,233, 11-17-70, Cl. 178-5.2

Ayres, William R., to Hammond Corporation. Electrical musical instrument. 3,489,842, 1-13-70, Cl. 84-1.01

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Azelborn, Nicolas A., to Ford Motor Company. Gas turbine heat exchanging system using slotted brackets for torque transmission. 3,496,993, 2-24-70, Cl. 165-8.

Aziendi Colori Nazional: Affini ACNA S.p.A.: *See*—
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Azim, Wakeem R., to Arkay Corporation. Adjustable support apparatus. 3,533,583, 10-13-70, Cl. 248-125.

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Azoulay, Adrien; and Teitgen, Jean, to Societe Nationale des Petroles d'Aquitaine. Process for the emulsion polymerization of conjugated dienes with mercaptan modifier. 3,510,467, 5-5-70, Cl. 260-94.4

Azuma, Hiroshi, to Wakayama Tetsuko Kabushiki Kaisha. Driving mechanism for jiggers. 3,516,619, 6-23-70, Cl. 242-67.1

Azuma, Hisao: *See—*
Yamanaka, Tatsuo; and Azuma, Hisao,3,535,023.

Azuma, Koichi. Coil winding tester including chapped wave oscillatory circuit. 3,526,830, 9-1-70, Cl. 324-51.

Azuma, Nobuhiro, to Kokusai Denshin Denwa Kabushiki Kaisha. Apparatus for reading out information punched into tapes or cards. 3,525,855, 8-25-70, Cl. 235-61.11

Azumi, Masao: *See—*
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Azure, Leo L., Jr., to Automata Corporation. Output recording system. 3,550,290, 12-29-70, Cl. 35-48.

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Azzopardi, Alfred: *See—*
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B-D Laboratories, Inc.: *See—*
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B-W Footwear Company, Inc.: *See—*
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Baab, Kenneth A.; and Blackwood, James M., to Bethlehem Steel Corporation. Checkers suitable for forming a checkerwork in a hot blast stove and method of forming same. 3,549,136, 12-22-70, Cl. 263-51.

Baach, Hans: *See—*
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Baachi, Ray M., to De Laval Turbine Inc. Lubricating oil control valve. 3,525,360, 8-25-70, Cl. 137-563.

Baacler, Rudolf Georg Theodor: *See—*
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Baade, Otto: *See—*
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Baade, Otto, to International Standard Electric Corporation. Circuit arrangement for a single or multifrequency signal receiver, operating with a speech immunity circuit and limiting the signals received. 3,501,703, 3-17-70, Cl. 328-165.

Baader, Herbert; Sennewald, Kurt; and Reis, Helmut, to Knapsack Aktiengesellschaft. Process for the manufacture of acrylonitrile. 3,527,787, 9-8-70, Cl. 260-465.9

Baader, Herbert; Sennewald, Kurt; and Reis, Helmut, to Knapsack Aktiengesellschaft. Process for the manufacture of 2,2,3-trichlorobutane. 3,538,169, 11-3-70, Cl. 260-658.

Baader, Klaus. Multifunction astronomical display planetarium. 3,520,073, 7-14-70, Cl. 35-45.

Baak, Nils Tryggve E. A.; and Rapp, Charles F., to Owens-Illinois, Inc. Low expansion copper-zinc aluminosilicate glass compositions, composite article and mirror. 3,498,876, 3-3-70, Cl. 161-193.

Baak, Nils Tryggve E. A.; and Rapp, Charles F., to Owens-Illinois, Inc. Alkali metal borosilicate glass compositions containing zirconia. 3,499,776, 3-10-70, Cl. 106-54.

Baak, Nils Tryggve E. A.; and Rapp, Charles F., to Owens-Illinois, Inc. Opal glass compositions. 3,506,464, 4-14-70, Cl. 106-54.

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Baatrup, Johannes Vagn, to Danfoss A/S. Control equipment for hydrostatic drive of a vehicle. 3,543,645, 12-1-70, Cl. 91-413.

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Baba, Hajime: *See—*
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Baba, Paul David: *See—*
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Babany, Lucien: *See—*
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Babany, Lucien, to CIT-Compagnie Industrielle des Telecommunications. Circuit serving for detecting the synchronism between two frequencies. 3,515,997, 6-2-70; Cl. 328-134.

Babb, Billy D.: *See—*
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Babb, Burton A., to International Telephone and Telegraph Corporation. Control arrangement with attenuation circuit controlling voltage-responsive switching means. 3,497,766, 2-24-70, Cl. 315-158.

Babb, Burton A., to International Telephone and Telegraph Corporation. Electroluminescent display utilizing voltage breakdown diodes. 3,522,473, 8-4-70, Cl. 315-169.

Babb, Burton A., to International Telephone and Telegraph Corporation. Electroluminescent display unit including discharge path. 3,538,380, 11-3-70, Cl. 315-169.

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Babberl, Marion G., to Rapid Mounting and Finishing Company. Display device. 3,545,113, 12-8-70, Cl. 40-106.41

Babbin, Saul A., to Pennwalt Corporation. Aluminum chloride-aluminum chlorohydroxide complex antiperspirant composition. 3,509,253, 4-28-70, Cl. 424-47.

Babbin, Saul A.; and Mohr, Alfred V., to Pennwalt Corporation. Aerosolized inhalator dispenser. 3,517,667, 6-30-70, Cl. 128-173.

Babbitt, Howard S., III; and Hamilton, Billy H., to Bell Telephone Laboratories, Incorporated. Repeatered cable transmission systems utilizing DC to DC converters. 3,535,472, 10-20-70, Cl. 179-170.

Babbitt, Richard W.; Newberg, Joseph; Schlosser, William; and Suchoff, Lydia A., to United States of America, Army. Method of making a computer memory stack. 3,534,471, 10-20-70, Cl. 29-604.

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Bigler, Bernhard; and Louvet-Dronet, Jules L., 3,527,261.
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Babcock & Wilcox Limited: *See—*
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Peters, Martin C.; and Perrin, Alfred J., 3,545,536.

Babcock, Clarence L., to Owens-Illinois, Inc. Method for making a light-weight, glass ceramic mirror blank containing a core of at least one layer of spheres. 3,535,098, 10-20-70, Cl. 65-33.

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Babcock, Gary C., to United States of America, Navy. Digital data transmission system. 3,497,619, 2-24-70, Cl. 178-68.

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Babcock, Henry Nash, to U.S. Grout Corporation. Cementitious compositions having inhibited shrinkage and method for producing same. 3,519,449, 7-7-70, Cl. 106-89.

Babcock, Henry N. Structural systems employing foaming-in-place. 3,511,007, 5-12-70, Cl. 52-309.

Babcock, John C.: *See—*
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Campbell, J. Allan; Babcock, John C.; and Pike, John E.,3,515,719.
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Babcock, Lyndon R., Jr.: *See—*
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Babcock, Roger M.; and Zaginailoff, Ralph G., to Avco Corporation. Fluidic temperature sensor. 3,533,290, 10-13-70, Cl. 73-357.

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Pacault, Pierre Henri; and Mary, Francis J., 3,543,534.

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Babel, Louis; and Girard, Andre, to Societe Metallurgique d'Imphy. Composite metal vessel. 3,503,598, 3-31-70, Cl. 266-39.

Baber, Lowell Keith: *See—*
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Babusci, Louis D.; Cretella, Biagio A.; Feder, David O.; and Koontz, Donald E., to Bell Telephone Laboratories, Incorporated. Unitary conically-shaped grid for a lead-acid cell. 3,532,545, 10-6-70, Cl. 136-36.

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Bacchiega, Roberto; and DeGarab, Giorgio, 70% to Montecatini S.p.A., and 30% to Giuseppe De Varda. Linings of electrolysis, remelting, and similar furnaces, containing molten metals, alone or together with molten salts. 3,514,520, 5-26-70, Cl. 13-35.

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Bache, Hermann, to Stahlwerke Bruninghaus G.m.b.H. Throttle valve. 3,521,662, 7-28-70, Cl. 137-269.

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Bachelier, Rene Georges, to Ateliers de Constructions Mecaniques et de Chaudromerie Corpet-Louvet & Cie. Mould closure device for a pressure moulding machine. 3,540,524, 11-17-70, Cl. 164-303.

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Bachman, John D. Pneumatic sensor device. 3,547,159, 12-15-70, Cl. 137-625.62

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Bacon, Robert E., to Eastman Kodak Company. Photographic systems comprising silver halide particles with occluded metal ions therein, a halogen acceptor, and an organic aldehyde. 3,547,647, 12-15-70, Cl. 96-94.

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Bailey, Richard T.; Hazeltine, James E., Jr.; and Straub, Donald H., to Armstrong Cork Company. Inspection head. 3,501,945, 3-24-70, Cl. 73-40.

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Baillie, Lloyd A., to Sinclair Research, Inc. Apparatus and method for converting hydrocarbons. 3,502,574, 3-24-70, Cl. 208-148.

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Bain, Kenneth Lindsay, to Parkson Industrial Equipment Company Limited. Plate heat exchangers. 3,548,933, 12-22-70, Cl. 165-167.

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Bainbridge, Wilfred N., to Automotive Products Company Limited. Shock absorbers. 3,525,511, 8-25-70, Cl. 267-64.

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Baird, Kenneth Mac Clure; and Smith, Donald Sinclair, to Canadian Patents and Development Limited. Method and apparatus for the stabilization of lasers, etalons, and similar optical devices. 3,517,331, 6-23-70, Cl. 331-94.5

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Baird-Kerr, Richard G.; and Hunter, Robert F., to Steel Company of Canada Limited, The. Selective galvanizing of steel strip. 3,523,067, 8-4-70, Cl. 204-15.

Baird, Robert M.; Baumgarten, Peter K.; and Gentilucci, Joseph A., to Du Pont de Nemours, E. I., and Company. Process for partially chlorinating methyl chloride and/or methylene chloride. 3,502,734, 3-24-70, Cl. 260-658.

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Baird, Stephen S., to Texas Instruments, Incorporated. Microelectronic circuit formed in an insulating substrate and method of making same. 3,488,834, 1-13-70, Cl. 29-577.

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Baker, Albert E., Jr.; Chalmers, Edward, Jr.; and Rigopulos, Peter N., to General Electric Company. Laminar membrane fuel cells and processes for their manufacture. 3,522,095, 7-28-70, Cl. 136-86.

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Baker, Alma R. Baby bath and play tub. 3,493,976, 2-10-70, Cl. 4-173.

Baker, Arthur Y., Jr. Teaching system and machine. 3,541,699, 11-24-70, Cl. 35-9.

Baker, Bernard S. Tensile testing. 3,513,694, 5-26-70, Cl. 73-95.5

Baker, Bernard S., to Institute of Gas Technology. Power module including thermally regenerative battery and fuel cell and method of operation. 3,522,101, 7-28-70, Cl. 136-83.

Baker, Bernard S.; and Gidaspow, Dimitri, to Institute of Gas Technology. Fuel cell and method of controlling the temperature of said cell. 3,523,830, 8-11-70, Cl. 136-86.

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Baker, Bernard S.; Meek, John; Khan, Amanullah R.; and Linden, Henry R., to Institute of Gas Technology. Reforming and selective methanation of hydrocarbons to generate hydrogen. 3,488,171, 1-6-70, Cl. 48-197.

Baker, Bernard S.; and Ng, Daniel Y. C., 1/2 to Consolidated Natural Gas Service Company, Inc., 1/2 to Southern California Gas Company, and Southern Counties Gas Company of California, mesne. Fuel cell matrix and method of impregnating periphery of matrix with chlorotrifluoro-ethylene polymer. 3,533,852, 10-13-70, Cl. 136-146.

Baker, Bernard S.; and Poole, William, to Courtaulds Limited. Tensile test sample holder. 3,504,536, 4-7-70, Cl. 73-95.

Baker, Bernard Stuart, to Courtaulds Limited. Stress testing apparatus and method. 3,499,321, 3-10-70, Cl. 73-95.5

Baker, Bernard Stuart, to Courtaulds Limited. Apparatus for the measurement of loads. 3,509,760, 5-5-70, Cl. 73-88.

Baker, Bert, to Pacific Foam Packaging. Packaging material and method of making same. 3,520,769, 7-14-70, Cl. 161-160.

Baker, Bonnie Vold; and Baker, Robert M. L., Jr. Water conveyance apparatus. 3,532,067, 10-6-70, Cl. 114-66.5

Baker, Buford M., to Texas Instruments, Incorporated. Intrusion detection system. 3,508,238, 4-21-70, Cl. 340-258.

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Baker, Clarence P. Burner nozzles. 3,488,005, 1-6-70, Cl. 239-493.

Baker, Crispin Stuart Leworthy, to Natural Rubber Producers' Research Association, The. Vulcanization of rubber with complex of monoborane and tertiary amine or triphenyl phosphine and calcium oxide. 3,527,740, 9-8-70, Cl. 260-80.78

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Baker, Don H., Jr.: *See—*
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Baker, Donal E.; and Skamfer, Robert E., to Westinghouse Electric Corporation. Step-type static tap changer apparatus with hysteresis and steering means. 3,551,789, 12-29-70, Cl. 323-43.5

Baker, Donald B., to Bird Machine Company. Process and apparatus for forming a high strength band along the length of a paper web. 3,493,463, 2-3-70, Cl. 162-109.

Baker, Donald H.; and Kesselring, Donald J., to Sperry Rand Corporation. Apparatus and method for calibrating magnetic compasses. 3,522,723, 8-4-70, Cl. 73-1.

Baker, Donald J., to Sylvania Electric Products, Inc. Tuner band switching arrangement. 3,510,808, 5-5-70, Cl. 334-49.

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Baker, Gene O.; Cadwallader, Robert H.; and Marinelli, Charles P., to International Business Machines Corporation. Handling and testing miniature magnetic elements. 3,539,004, 11-10-70, Cl. 209-73.

Baker, George W. Method for expanding a cylindrical vacuum cooling chamber. 3,543,369, 12-1-70, Cl. 29-157.

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Baker, Gregory N.; Castrodale, Daniel O.; and Schopp, Robert E., to International Business Machines Corporation. Electro-mechanical actuator. 3,539,097, 11-10-70, Cl. 234-115.

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Baker, Hayward R.; and Bolster, Robert N., to United States of America, Navy. Corrosion inhibiting lubricant composition. 3,505,228, 4-7-70, Cl. 252-51.5

Baker, Hayward R.; and Bolster, Robert N., to United States of America, Navy. Water repellent corrosion inhibiting composition. 3,546,151, 12-8-70, Cl. 260-28.5

Baker, Hayward R.; and Leach, Paul B., to United States of America, Navy. Composition and method for cleaning salt residues from metal surfaces. 3,491,027, 1-20-70, Cl. 252-86.

Baker, Herbert; and Rathje, David S. High speed bobbin winder. 3,498,567, 3-3-70, Cl. 242-158.4

Baker, Hugh M., Jr.; and Cressey, John R., to HB Engineering Corporation. Method and system for determining whether a switch is open or closed. 3,550,090, 12-22-70, Cl. 340-171.

Baker, Ian P. S., to United Gas Industries Limited. Flue seal for gas appliance. 3,550,579, 12-29-70, Cl. 126-307.

Baker, Irvin; and Robins, Charles, to Cello Chemical Company, The. Waxes. 3,506,603, 4-14-70, Cl. 260-28.

Baker, Jack R., to Jariba Corporation. Ankle support. 3,506,000, 4-14-70, Cl. 128-166.

Baker, Jack R., to Jariba Corporation. Ankle support. 3,515,136, 6-2-70, Cl. 128-166.

Baker, Jack R., to Jariba Corporation. Drop foot support. 3,527,209, 9-8-70, Cl. 128-80.

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Baker, James A., to Cornell Research Foundation, Inc. Hog cholera vaccine. 3,489,834, 1-13-70, Cl. 424-89.

Baker, James G., to Polaroid Corporation. Wide angle symmetrical copying objective lens system. 3,507,560, 4-21-70, Cl. 350-221.

Baker, James G., to Polaroid Corporation. Corrected optical system for shallow camera or the like, and components thereof. 3,548,729, 12-22-70, Cl. 95-36.

Baker, Jean A., to Varian Associates. Electron tube filament support structure employing deformable loop portions of the filaments. 3,522,467, 8-4-70, Cl. 313-278.

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Baker, John Gordon, to Baker Manufacturing Company. Swing check valve. 3,504,700, 4-7-70, Cl. 137-527.4

Baker, John H., Jr., to Schlumberger Technology Corporation. Coil assembly for nuclear magnetism well logging. 3,538,429, 11-3-70, Cl. 324-0.5

Baker, John William, to Eutectic Welding Alloys Co., Ltd. Method of repairing metal surfaces. 3,488,205, 1-6-70, Cl. 117-2.

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Baker, Joseph C.; and Thompson, Thomas W., to International Business Machines Corporation. Imprinter with print mode selection. 3,515,063, 6-2-70, Cl. 101-269.

Baker, Joseph S.; and Edwards, James B., to Procter & Gamble Company, The. Continuous high temperature steam deodorization of edible oils. 3,506,696, 4-14-70, Cl. 260-428.

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Baker, Joseph W.; and Bachman, Gerald L., to Monsanto Company. Triazolylamino halogenated furanones to control bacteria. 3,497,595, 2-24-70, Cl. 424-269.

Baker, Joseph W.; and Howe, Robert K., to Monsanto Company. Insecticidal composition and method containing anilinomethylene malonitriles. 3,551,573, 12-29-70, Cl. 424-304.

Baker, Lawrence K., to RCA Corporation. Method of fabricating semiconductor devices. 3,535,774, 10-27-70, Cl. 29-580.

Baker, Leroy D.; and Peppler, William S., to Diamond International Corporation. Apparatus for continuously producing packages of produce. 3,516,227, 6-23-70, Cl. 53-306.

Baker, Leslie H., Jr. Metal body locator including two similar, functionally variable frequency oscillators, two search coils and cross-coupling means. 3,492,564, 1-27-70, Cl. 324-3.

Baker, Lily M.Shopper's reminder. 3,505,973, 4-14-70, Cl. 116-135.

Baker, Lionel Richard, to British Scientific Instrument Research Association. Lens centering instrument. 3,544,796, 12-1-70, Cl. 250-201.

Baker, Lionel Richard, to British Scientific Instrument Research Association. Radiant sensitive apparatus for measuring linear dimensions. 3,546,466, 12-8-70, Cl. 250-209.

Baker, Lowell B. Body positioning device. 3,532,336, 10-6-70, Cl. 269-328.

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Baker, Marvin B.; and Marlow, James T., to Van Raalte Company, Inc. Suction operated yarn end clamping means for circular knitting machines. 3,494,151, 2-10-70, Cl. 66-140.

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Baker, Paul W.; and Retzer, Edward J., to Olin Mathieson Chemical Corporation. Process for laminating films. 3,540,966, 11-17-70, Cl. 156-307.

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Baker, Peter J., to Mobay Chemical Company. Polycarbonates of improved color properties. 3,492,268, 1-27-70, Cl. 260-47.

Baker, Ralph C.; Davis, Douglas N.; Bronstein, Leon; and Lowe, John A. High resolution frequency to voltage converter. 3,538,416, 11-3-70, Cl. 321-6.

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Baker, Roger Cecil, to Kent, George, Limited. Fluid flow velocity measurement. 3,503,258, 3-31-70, Cl. 73-194.

Baker, Ronald A., to Sprague Electric Company. Electrolytic capacitor. 3,508,122, 4-21-70, Cl. 317-230.

Baker, Slade Hale. Operating mechanism for power driven can openers. 3,537,177, 11-3-70, Cl. 30-4.

Baker, Slade H. Powered thread cutter. 3,521,313, 7-21-70, Cl. 10-89.

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Baker, Stephen R., to Bethlehem Steel Corporation. Method for erecting parallel-wire bridge strand. 3,531,811, 10-6-70, Cl. 14-23.

Baker, Stephen R.; and Pearson, William J., deceased (by Pearson, Dritha D.; administratrix), to Bethlehem Steel Corporation. Pulling clamp for parallel wire strand. 3,494,005, 2-10-70, Cl. 24-122.6

Baker, Theodore C. Combined paperboard and plastic egg carton with self-locking cover. 3,531,044, 9-29-70, Cl. 229-44.

Baker, Theodore C.; Bode, Wolfgang W.; Mathias, Richard G.; Nolan, James F.; and Pfaender, Lawrence V., to Owens-Illinois, Inc. Gas discharge display memory device and method of operating. 3,499,167, 3-3-70, Cl. 315-169.

Baker, Thomas B.; Carson, Kit P.; and Sandberg, Harry W., to Du Pont de Nemours, E. I., and Company. End structure for thermoplastic tubing. 3,529,664, 9-22-70, Cl. 165-178.

Baker, Thomas R., to Kliklok Corporation. Box erecting devices for reducing the effect of stringing out of adhesives. 3,511,138, 5-12-, Cl. 93-51.

Baker, William Andrew, to Rolls-Royce (Composite Materials) Limited. Bore hole type wells. 3,516,448, 6-23-70, Cl. 138-144.

Baker, William H., to Paddock of California, Inc. Filter and valve assembly for water circulation systems. 3,491,884, 1-27-70, Cl. 210-169.

Baker, William H., to American Mushroom Corporation. Mushroom handling apparatus. 3,545,512, 12-8-70, Cl. 146-81.

Baker, William J.; and Hurst, Richard J., to Gardner-Denver Company. Conductor wrapping bit. 3,531,056, 9-29-70, Cl. 242-7.17

Baker, William M. Cabbage and lettuce harvesters. 3,497,013, 2-24-70, Cl. 171-38.

Baker, William O., to Swimquip, Inc. Method and apparatus of cleaning a pool. 3,506,489, 4-14-70, Cl. 134-10.

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Bakes, Hal H., to Heinemann Electric Company. Electromagnetic device having a short circuited turn. 3,517,357, 6-23-70, Cl. 335-63.

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Bakke, Ernest P.; Benson, Allen Bryce; and Bymers, Ronald J., to International Business Machines Corporation. Differential amplifier. 3,548,333, 12-15-70, Cl. 330-30.

Bakke, Hans A.; Corson, Almon J.; Kernander, Warren N.; and Van Bennekom, Carl F., to General Electric Company. Moving magnet instrument adapted for blind assembly. 3,510,774, 5-5-70, Cl. 324-146.

Bakke, Roger M., to International Business Machines Corporation. Adaptive control system. 3,535,496, 10-20-70, Cl. 235-150.1

Bakken, Maynard M. Inner door for railway boxcars. 3,513,901, 5-26-70, Cl. 160-368.

Bakker, Donavon L., to Butler Manufacturing Company. Silage handler with automatic filling control. 3,524,557, 8-18-70, Cl. 214-17.

Bakker, Lubertus, to Air Preheater Company, Inc., The. Gaseous waste incinerator. 3,491,707, 1-27-70, Cl. 110-8.

Bakker, Martin B.; and Swearingen, Stanley A., to International Telephone and Telegraph Corporation. Method of manufacturing semiconductor devices. 3,535,773, 10-27-70, Cl. 29-580.

Bakkerus, Hermanus, to Nederlandse Organisatie Voor Toegepast-Natuurwetenschappelijk Onderzoek Ten Behoeve Van Nijverheid, Handel En Verkeer. Method for feeding additive materials into a stream of molten metals. 3,514,285, 5-26-70, Cl. 75-129.

Bakoledis, Andrew G.; and Brosious, James B., to Olin Corporation. Extractor for cartridge-actuated device. 3,543,986, 12-1-70, Cl. 227-10.

Bakondy, Thomas T.; and Osten, Taylor A. Embryonic organ cells in a state of preservation and methods for preserving the same. 3,490,437, 1-20-70, Cl. 128-1.

Bakos, Peter; and Kozak, Gary S., to International Business Machines Corporation. Method of preparing photosensitive poly 02-chloro- 1,3-butadiene). 3,551,160, 12-29-70, Cl. 96-115.

Bakston, Benjamin F.: *See—*
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Bakule, Ronald D.: *See—*
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Bakunin, Maurice I.; Napoli, Leonard; and Costanzo, Raphael J. Medical gynecologic oscillator. 3,504,665, 4-7-70, Cl. 128-36.

Balaev, Oleg Gavrilovich; and Ediny, Jury Grigorievich. Instrument for crushing concretions in the urinary bladder. 3,543,757, 12-1-70, Cl. 128-328.

Balaguer Golobart, Ramon. Disconnecting device for weft thread inserters. 3,494,383, 2-10-70, Cl. 139-20.

Balaguer Golobart, Ramon. Universal weft stop motion. 3,500,876, 3-17-70, Cl. 139-370.

Balaguer, Rodolfo Rodriguez, to Battery Corporation of America. Dry cell battery. 3,490,952, 1-20-70, Cl. 136-111.

Balakin, Valentin Ivanovich: *See—*
Khrenov, Konstantin Konstantinovich; Chudakov, Vyacheslav Andreevich; and Balakin, Valentin Ivanovich,3,502,840.

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Balamuth, Lewis, to Cavitron Corporation. Method and apparatus for high frequency screening of materials. 3,490,584, 1-20-70, Cl. 209-1.

Balamuth, Lewis, to Cavitron Corporation. Apparatus for altering the cross-sectional shape of a plastically deformable workpiece using high frequency vibrations. 3,495,427, 2-17-70, Cl. 72-56.

Balamuth, Lewis, to Ultrasonic Systems, Inc. Method and apparatus for treatment of organic structures with coherent elastic energy waves. 3,499,436, 3-10-70, Cl. 128-24.

Balamuth, Lewis, to Ultrasonic Systems, Inc. Method and apparatus for treatment of organic structures and systems thereof with ultrasonic energy. 3,499,437, 3-10-70, Cl. 128-24.

Balamuth, Lewis, to Ultrasonic Systems, Inc. Method and apparatus for ultrasonically removing tissue from a biological organism. 3,526,219, 9-1-70, Cl. 128-2.

Balamuth, Lewis, to Ultrasonic Systems, Inc. Method and apparatus for maintaining tooth and gingival structures with ultrasonic energy. 3,547,110, 12-15-70, Cl. 128-66.

Balamuth, Lewis, to Ultrasonic Systems, Inc. Ultrasonic treatment method and device for fertilized ova and live embryos. 3,550,586, 12-29-70, Cl. 128-24.

Balan, Isadore; and Scott, Ian J. C., to Chrysler Corporation. Control unit. 3,500,788, 3-17-70, Cl. 116-28.

Balanca, Pierre; Bernard, Claudette; and Taponier, Jean, to Saint-Gobain Techniques Nouvelles. Method and apparatus for irradiating fluent materials through a helica path. 3,527,940, 9-8-70, Cl. 250-44.

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Balandin, Stanislav Markovich: *See—*
Polyakovsky, Lev Judelevich; Kornev, Igor Vladimirovich; Kovaeva, Lidia Petrovna; and Balandin, Stanislav Markovich,3,500,624.

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Cox, John R.; and Mix, Joseph E., 3,516,681.
Cox, John R.; and Mix, Joseph E., 3,546,781.

Balassa, Leslie L. Encapsulation of aromas and flavore. 3,495,988, 2-17-70, Cl. 99-71.

Balazs, Joseph B.: *See—*
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Balcazar, Humberto Vivas: *See—*
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Balch, Ralph H.; Watson, George A.; and Coates, Herbert W., to Celanese Corporation. Nonwoven continuous filament product and method of preparation. 3,505,155, 4-7-70, Cl. 161-57.

Balcke, Gerhard; and Reichelt, Hans, to Bosch, Robert, G.m.b.H. Combined voltage regulator-brush holder unit for automotive type alternator. 3,496,394, 2-17-70, Cl. 310-68.

Balcke, Gerhard; and Reichelt, Hans, to Bosch, Robert, G.m.b.H. Encapsulated solid state voltage regulator for automotive use. 3,532,962, 10-6-70, Cl. 322-28.

Balckmer, David E., to Instrumentation Laboratory, Inc. Compensated DC amplifier input stage employing junction field effect transistors. 3,517,325, 6-23-70, Cl. 330-23.

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Balcom, Orville R., Jr., to United States of America, Air Force. Circuit for converting voltage to time. 3,514,634, 5-26-70, Cl. 307-235.

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Baldassare, Michael, to Capitol Machine and Switch Company, The. Electrical switch mechanism with radio frequency shielding. 3,542,988, 11-24-70, Cl. 200-168.

Baldauf, Gerard A.; and Elking, Michael J., to Bell Telephone Laboratories, Incorporated. Method for cleaning metal surfaces. 3,543,389, 12-1-70, Cl. 29-488.

Balde, Daniel; and Nagy, Georges, to Societe Anonyme Ugine Kuhlmann. Phosphorus and nitrogen-containing polyols. 3,549,728, 12-22-70, Cl. 260-932.

Balde, John W., to Western Electric Company, Incorporated. Method of producing an integrated circuit containing multilayer tantalum compounds. 3,489,656, 1-13-70, Cl. 204-15.

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Baldine, Joseph J. Trash exhausting incinerator for vehicles. 3,495,557, 2-17-70, Cl. 110-18.

Balding, George H., to Kaiser Aerospace & Electronics Corporation. Integrated control and display of aircraft attitudes. 3,497,870, 2-24-70, Cl. 340-27.

Balding, George H. Enuretic control device. 3,530,855, 9-29-70, Cl. 128-138.

Balding, George H.; Stinchelfer, Jonathan J.; and Ziegler, David H., to Kaiser Aerospace & Electronics Corporation. Electronic eye motion recorder system. 3,542,457, 11-24-70, Cl. 351-7.

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Baldwin, Brian E.; and Karlinski, Herbert E., to Pennwalt Corporation. Abrading apparatus. 3,517,461, 6-30-70, Cl. 51-12.

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Baldwin, Ernest E. Display sign. 3,535,807, 10-27-70, Cl. 40-140.

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Baldwin, Herman J., to Cincinnati Milling Machine Co., The. Material limiting device for use with a material cutting machine. 3,492,899, 2-3-70, Cl. 83-420.

Baldwin, Herman J., to Cincinnati Milling Machine Co., The. Apparatus for sharpening reciprocating cutting blade of material cutting machine. 3,507,177, 4-21-70, Cl. 83-174.

Baldwin, Herman J., to Cincinnati Milling Machine Co., The. Hold down plate for use with material cutting machine. 3,535,965, 10-27-70, Cl. 83-129.

Baldwin, Herman J., to Cincinnati Milling Machine Co., The. Marking device for material cutting machine. 3,548,502, 12-22-70, Cl. 33-18.

Baldwin, Herman J., to Cincinnati Milacron Inc. Machine tool spindle apparatus. 3,548,711, 12-22-70, Cl. 90-14.

Baldwin, Herman J.; and Mc Donald, David I., to Cincinnati Milacron Inc. Material cutting machine having sharpening bands for sharpening reciprocating cutting blade. 3,548,495, 12-22-70, Cl. 30-139.

Baldwin, Herman J.; and McDonald, David I., to Cincinnati Milling Machine Co., The. Support structure for endless band. 3,519,121, 7-7-70, Cl. 198-184.

Baldwin, Herman J.; and Sederberg, George W., to Cincinnati Milacron Inc. Rockable closure device for material cutting machine. 3,529,501, 9-22-70, Cl. 83-111.

Baldwin, James Granville, Sr. Tamperproof hinge. 3,510,906, 5-12-70, Cl. 16-128.

Baldwin, John A., Jr., to North American Rockwell Corporation. Non-destructive readout memory element having dual apertures. 3,500,355, 3-10-70, Cl. 340-174.

Baldwin, John Henry; and Hanzi, Carl Wesley, to Borg-Warner Limited. Manual selector arrangement for an automatic gear. 3,519,111, 7-7-70, Cl. 192-4.

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Baldwin, John Lewis Edward, to U.S. Philips Corporation, mesne. Apparatus for reproducing video tape recordings in slow motion. 3,504,119, 3-31-70, Cl. 178-6.6

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Baldwin, Norman F. Load disconnecting device for an alternator adapted for rotation at varying speed. 3,543,037, 11-24-70, Cl. 290-7.

Baldwin, Oscar Conrad. Isothermal expansion closed circuit power unit, using refrigerant superheated gas as the prime mover. 3,531,933, 10-6-70, Cl. 60-36.

Baldwin, Philip Sidney, 1/2 to Fiat Societa per Azioni. Seal, particularly for a piston in the master cylinder of a hydraulic brake system. 3,490,232, 1-20-70, Cl. 60-546.

Baldwin, Richard H., to Standard Oil Company (Indiana). Terephthalic acid crystallization. 3,505,398, 4-7-70, Cl. 260-525.

Baldwin, Richard R., to United States of America, Atomic Energy Commission. Spherical interferometer. 3,512,891, 5-19-7, Cl. 356-109.

Baldwin, Richard W. W., to Shell Oil Company. 2,1,3-Benzothiadiazols-dicarbonitriles as defoliants. 3,501,285, 3-17-70, Cl. 71-73.

Baldwin, Samuel L.; and Wood, David L., to General Electric Company. Luminaire. 3,524,051, 8-11-70, Cl. 240-25.

Baldwin, Willett F., to Mobil Oil Corporation. Logging system and method. 3,503,038, 3-24-70, Cl. 340-15.5

Baldwin, Willett F.; and McNeely, Wayne E., to Mobil Oil Corporation. Method of investigating well blast impingement conditions. 3,509,764, 5-5-70, Cl. 73-155.

Baldwin, Willett F.; and Slover, Vasel R., to Mobil Oil Corporation. Well logging system employing three-conductor logging cable. 3,518,679, 6-30-70, Cl. 340-18.

Baldwin, William J., to National Lead Company. Stabilized zirconia bodies. 3,533,815, 10-13-70, Cl. 106-57.

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Robertson, Dean S.; and Jackson, Carroll V., 3,516,555.

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Bale, Alton G., Jr.; and Moore, William H., to Wisconsin Electrical Mfg., Co., Inc. Electrically controlled material delivery system. 3,493,062, 2-3-70, Cl. 177-70.

Balency-Bearn, Andre. Mould with slide valve therefor. 3,494,010, 2-10-70, Cl. 25-41.

Bales, John W., Jr.; and Miller, William G., to United States Steel Corporation. Method of cold reducing. 3,523,437, 8-11-70, Cl. 72-43.

Bales, Thomas T.: *See—*
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Bales, William Henry: *See—*
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Balevski, Angel T.; and Nikolov, Ivan D., to Institut Po Metaloznanie I Technologia Na Metalite. Method and apparatus for casting utilizing fluid pressure differentials. 3,532,154, 10-6-70, Cl. 164-119.

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Balhouse, Harold J., to Grinnell Corporation. Cartridge ball valve. 3,498,582, 3-3-70, Cl. 251-151.

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Balint, Andrew, to Bell & Howell Company. Transducer head pressure control apparatus having adjustable pressure feature. 3,493,693, 2-3-70, Cl. 179-100.2

Balint, Andrew, to Bell & Howell Company. Film printer control circuit. 3,533,693, 10-13-70, Cl. 355-71.

Balint, Andrew, to Bell & Howell Company. Discrepancy indicator for record duplicating apparatus. 3,551,608, 12-29-70, Cl. 179-100.2

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Balint, Laszlo J.; Abos, Ramon Luis; and Snider, Orvill E., to Allied Chemical Corporation. Process for crystallization, drying and solid-state polymerization of polyesters. 3,544,525, 12-1-70, Cl. 260-75.

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Balke, Earl W., to Eaton Yale & Towne, Inc. Monorail brake system. 3,503,471, 3-31-70, Cl. 188-57.

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Ball, Douglas W. H., to Dixon, T. H., & Company Limited. Machine for forming wound rolls of sheet material. 3,498,557, 3-3-70, Cl. 242-56.

Ball, Ervin M.: *See—*
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Ball, Frank J.: *See—*
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Ball, Harry, to Technical Fabricators, Inc. Filter unit. 3,542,202, 11-24-70, Cl. 210-232.

Ball, Joseph. Pool table. 3,544,108, 12-1-70, Cl. 273-8.

Ball, Lawrence J., to Phillips Petroleum Company. Method and apparatus for contacting the interior surface of tubular articles. 3,522,337, 7-28-70, Cl. 264-95.

Ball, Lawrence J., to Phillips Petroleum Company. Extrudate sizing sleeve. 3,546,745, 12-15-70, Cl. 18-14.

Ball, Vincent W., to United States of America, Army. Ball shutter. 3,535,995, 10-27-70, Cl. 95-58.

Ball, Wesley L., to Appliance Manufacturing Co., Inc. Snap-action switch. 3,497,649, 2-24-70, Cl. 200-67.

Ball, William John; and Jenkins, Rowland Harris. Distillers Company Limited, The Production of acrolein and acrylic acid. 3,506,708, 4-14-70, Cl. 260-533.

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Ballantine, James S. Pneumatic apparatus having detachable mounting means. 3,499,368, 3-10-70, Cl. 91-418.

Ballantyne, David B., to General Motors Corporation. Closure bias. 3,541,730, 11-24-70, Cl. 49-386.

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Ballard, Harold N.; and Izquierdo, Miguel, to United States of America, Army, mesne. Multiple wind screen noise attenuation system. 3,550,720, 12-29-70, Cl. 181-31.

Ballard, Harry J. Router bit edge forming machine. 3,518,797, 7-7-70, Cl. 51-123.

Ballard, Homer Lee, to Burlington Industries, Inc. Energy absorbing fabric. 3,530,904, 9-29-70, Cl. 139-383.

Ballard, John D. Control system for operating electrical automotive accessories independently of other automotive accessories. 3,514,623, 5-26-70, Cl. 307-10.

Ballard, John H.; and Hines, John E., Jr., to Union Oil Company of California. Apparatus for mixing fluids in concurrent downflow relationship. 3,502,445, 3-24-70, Cl. 23-288.

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Ballard, Robert L. Cutting tool edge construction. 3,496,973, 2-24-70, Cl. 143-133.

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Ballard, Robert L., to Hurst-Campbell, Inc. System for minimizing skidding. 3,528,708, 9-15-70, Cl. 303-21.

Ballard, Samuel S.: *See—*
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Ballenger, William G., to Central Specialties Co. Infant stroller. 3,524,655, 8-18-70, Cl. 280-47.38

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Ballestra, Mario; and Triberti, Domenico. Fragmenting and drying method. 3,550,867, 12-29-70, Cl. 241-3.

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Ballin, Gene. Collapsible tube and follower. 3,493,147, 2-3-70, Cl. 222-158.

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Ballinger, Hugh Anthony, to United Kingdom Atomic Energy Authority. Underwater vehicle. 3,550,386, 12-29-70, Cl. 61-69.

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Ballman, Alan R.; and Green, George K., to Westinghouse Electric Corporation. Latchable electrical connector assemblage. 3,501,735, 3-17-70, Cl. 339-75.

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Ballman, Gray C. Means for protecting against electrical overload in a saturable transformer. 3,532,934, 10-6-70, Cl. 317-14.

Ballock, Ralph H., Sr. Cable support. 3,520,988, 7-21-70, Cl. 174-135.

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Ballou, Richard P.; and McDougal, John A., to General Motors Corporation. Fuel supply system. 3,545,418, 12-8-70, Cl. 123-136.

Ballu, Vincent P. M., to Tecnoma. Liquid sprayers for the treatment of crops. 3,504,857, 4-7-70, Cl. 239-168.

Bally Manufacturing Corporation: *See*—
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Balm Paints Limited: *See*—
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Balmain, Keith George, to University of Toronto, The Governors of the. Antennas with loop coupled feed system. 3,509,573, 4-28-70, Cl. 343-792.5

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Balocca, Alfred Edward, to American Can Company. Method of packaging. 3,517,475, 6-30-70, Cl. 53-22.

Balon, Albert J. Swivel tube coupling. 3,488,069, 1-6-70, Cl. 285-94.

Balon, Albert J. Pilot light. 3,527,410, 9-8-70, Cl. 239-288.5

Balon, Albert J. Valve and valve tube assembly. 3,540,692, 11-17-70, Cl. 251-149.8

Balon, Albert J. Pilot light structure. 3,547,570, 12-15-70, Cl. 431-350.

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Balsiger, Georges, to Magdeleine Benois. Composition and method for hardening finger and toenails. 3,510,554, 5-5-70, Cl. 424-61.

Balsiger, Harold E., to Litton Industries, Inc., mesne. Valve grinding machine. 3,550,323, 12-29-70, Cl. 51-105.

Balson, John E. Hypodermic syringe. 3,496,937, 2-24-70, Cl. 128-216.

Balster, Lester Alfred; and Kay, Daniel Joseph, to National Cash Register Company, The. Master paper for thermal page printer. 3,519,464, 7-7-70, Cl. 117-36.1

Baltakis, Frank P., to United States of America, Navy. Fast response pressure gage. 3,521,492, 7-21-70, Cl. 73-398.

Balter, David W., to Uneeda Doll Co., Inc., mesne. Simulated padlock toy carry case. 3,497,992, 3-3-70, Cl. 46-11.

Balthazor, Bernard E., to Buddy L. Corporation. Toy vehicle with dual winches. 3,492,757, 2-3-70, Cl. 46-40.

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Baltus, George T., to Bell Aerospace Corporation. Torsional mechanical input signal apparatus. 3,490,339, 1-20-70, Cl. 91-186.

Baltz, Albert L.; and Voeke, Elmer E., to Eagle Range & Manufacturing Company. Range control panel assembly. 3,527,200, 9-8-70, Cl. 126-42.

Baltz, George William. Apparatus for storing and removing silage. 3,542,216, 11-24-70, Cl. 214-17.

Baltz, Hans; Pritzkow, Wilhelm; and Schmidt, Harald, to VEB Leuna-Werke 'Walter Ulbricht'. Process for the cyclotrimerization of butadiene for obtaining cyclododecatriene (1,5,9). 3,529,028, 9-15-70, Cl. 260-666.

Baltzer, Donald H., to Vari-Light Corporation. Photochromic systems. 3,508,810, 4-28-70, Cl. 350-160.

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Bambenek, Robert A.: *See*—
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Bamford, Robert M.: *See*—
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Ban, Itsuki. Tape player utilizing plurality of endless loop magnetic tape cartridges. 3,511,508, 5-12-70, Cl. 274-4.

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Ban, Thomas E. Process for producing coated lime product. 3,519,471, 77-70, Cl. 117-100.

Ban, Thomas E.; and Goetzman, Harold E., to McDowell-Wellman Engineering Company. Gas-solid reaction. 3,495,973, 2-17-70, Cl. 75-5.

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Banathy, Eugene Denis; and Rosenski, Julius Robert, to International Register Company. Time switch for mounting on a wall mounted outlet box. 3,548,125, 12-15-70, Cl. 200-38.

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Banchieri, Giuseppe. Direct wire cooling in synchronous electrical machines. 3,543,062, 11-24-70, Cl. 310-54.

Banchink, Ira N.; Sze, Morgan C.; and Maddock, Maldwin J., to Lummus Company, The. Steam reforming of carbon monoxide rich hydrocarbon feeds. 3,527,565, 9-8-70, Cl. 23-212.

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Bancroft, James E., to Allied Control Company. Electromagnetic toggle filament tension monitoring device. 3,521,265, 7-21-70, Cl. 340-259.

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Band-It Company: *See*—
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Bang, Mogens W., to Stackpole Carbon Company. Electrical control mounting device. 3,525,067, 8-18-70, Cl. 339-17.

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Banks, William P.; Oertle, Donald H.; and Radd, Frederick J., to Continental Oil Company. Corrosion-analytical monitoring apparatus. 3,498,900, 3-3-70, Cl. 204-195.

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Banning, Harmon W., to Alford, Andrew. Precision miniature sexless coaxial connector. 3,533,046, 10-6-70, Cl. 339-48.

Banning, Peter C.; and Keller, Dale W., to Minnesota Mining and Manufacturing Company. Holder for flexible abrasive. 3,496,684, 2-24-70, Cl. 51-334.

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Bara Industries Corporation: *See—*
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Bara, Stanley, to Boonton Electronics Corporation. Method and apparatus for measuring 'Q' of a reactive element in a bridge circuit. 3,523,242, 8-4-70, Cl. 324-57.

Barabas, Charles, to Bara Industries Corporation. Flush closing sliding doors. 3,510,983, 5-12-70, Cl. 49-130.

Barabas, Eugene S.: *See—*
Fein, Marvin M.; Jasinski, Victor K.; and Barabas, Eugene S.,3,511,817.
Merijan, Ashot; Barabas, Eugene S.; and Fein, Marvin M.,3,494,907.

Barabas, Eugene S.; and Grosser, Frederick, to GAF Corporation. Stable aqueous emulsions. 3,488,312, 1-6-70, Cl. 260-29.6

Barabas, Henry: *See—*
Runo, William R.; Henderson, Henry F., Jr.; and Barabas, Henry,3,538,676.

Barabas, Silvio; Isreeli, Jack; Pelavin, Milton H.; and Kling, Nelson G., to Technicon Corporation. Anodic dissolution process and apparatus therefor. 3,503,862, 3-31-70, Cl. 204-225.

Baradel, Agostino: *See—*
Chini, Paolo; and Baradel, Agostino,3,496,114.

Barak, Anthony J.; Beckenhauer, Harriet C.; Myers, Richard A.; and Wilger, Roy N., to United States of America, Veterans Affairs and/or Army. Flowmeter for use in monitoring oxygen uptake. 3,516,292, 6-23-70, Cl. 73-221.

Baram, Martin, to Alfa-Laval Aktiebolag. Fluid controlled membrane valve for centrifuges. 3,532,265, 10-6-70, Cl. 233-20.

Baran, John S.; and Laos, Ivar, to Searle, G. D., & Co.3,17-Bisoxygenated 11β-methyl-19-nor-pregn-4-en- 20-ones and derivatives thereof. 3,527,778, 9-8-70, Cl. 260-397.45

Baran, John. Blanking thin gauge material. 3,501,985, 3-24-70, Cl. 83-88.

Baran, Miroslav, to Saverwein, Dr., K., mesne. Flaw-detector carriage for introducing radioactive source into pipelines. 3,547,040, 12-15-70, Cl. 104-138.

Baranauckas Charles F.; and Gordon, Irving, to Hooker Chemical Corporation. Bis(oxypropylated pentearythritol) oxypropylated pentearythritol phosphonate. 3,538,196, 11-3-70, Cl. 260-953.

Baranauckas, Charles F.; and Gordon, Irving, to Hooker Chemical Corporation. Esters of phosphorus and method of preparation thereof. 3,511,857, 5-12-70, Cl. 260-347.8

Baranauckas, Charles F.; and Harris, Edward E., to Hooker Chemical Corporation. Process relating to alkylphosphonous dihalides. 3,519,685, 7-7-70, Cl. 260-543.

Baranauckas, Charles F.: *See—*
Frank, Arlen W.; and Baranauckas, Charles F.,3,501,555.
Frank, Arlen W.; and Baranauckas, Charles F.,3,505,433.

Baranow, Sanford; and Freeman, William R., Jr., to Avco Corporation. Coating process. 3,515,095, 6-2-70, Cl. 118-48.

Baranowski, Kurt: *See—*
Geipel, Hans; Forster, Eckehard; Heinemann, Wilfried; and Baranowski, Kurt,3,550,920.

Baranwal, Krishna C.: *See—*
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Baranyovits, Francis Leslie Charles; Ghosh, Ranajit; Bishop, Nigel Douglas; Freeman, Peter Frank Hilary; and Jones, William Glynne Moss, to Imperial Chemical Industries Limited. 2-Amino pyrimidinyl-6-carbamates and salts thereof. 3,493,574, 2-3-70, Cl. 260-256.4

Barasch, Werner, to Becton, Dickinson of California, Inc. Sterilizing method and sterilizing package. 3,494,726, 2-10-70, Cl. 21-58.

Barash, Michael; and Anthony, Benedict S., to Collagen Corporation. Method of making fibrous sheet material. 3,542,910, 11-24-70, Cl. 264-122.

Barassi, Carlo; and Cappa, Giulio, to Pirelli S.p.A. Coupling profile in removable tread tires. 3,496,981, 2-24-70, Cl. 152-187.

Baratella, Pietro: *See—*
Aglietti, Giancarlo; Baratella, Pietro; and Lugo, Luigi,3,538,017.

Baratta, Vincent J. Ribbon of bandages and dispenser. 3,530,494, 9-22-70, Cl. 206-63.2

Baratto, Elia, to Olivetti, Ing., C., & C., S.p.A. Digital position measuring device. 3,537,102, 10-27-70, Cl. 340-347.

Baratto, Elia: *See—*
Brescia, Riccardo; and Baratto, Elia,3,531,800.

Baratto, Eugene L., to Minnesota Mining and Manufacturing Company. Abrasive article containing hollow spherules filled with lubricant. 3,502,453, 3-24-70, Cl. 51-295.

Barbano, Normand, to Sylvania Electric Products, Inc. Waveguide fed frequency independent antenna. 3,509,572, 4-28-70, Cl. 343-792.5

Barbano, Normand; and Hochman, Howard, to Sylvania Electric Products, Inc. Broadband log periodic antenna with phase reversing parasitic elements. 3,530,484, 9-22-70, Cl. 343-792.5

Barbano, Normand; and Hochman, Howard, to Sylvania Electric Products, Inc. Antenna boom and feed line structure. 3,550,144, 12-22-70, Cl. 343-792.5

Barbano, Normand; and Johnstone, Donald L., to Sylvania Electric Products, Inc. Furlable antenna. 3,500,424, 3-10-70, Cl. 343-792.5

Barbara, Louis J. Electrotherapeutic apparatus with body impedance- sensitive intensity regulation. 3,489,152, 1-13-70, Cl. 128-422.

Barbaro, Gaspere P., to Palmer-Shile Company. Safety locking construction for adjustable storage racks. 3,507,400, 4-21-70, Cl. 211-176.

Barbary, George A., deceased (by Barbary, Helen K., executrix); Burelbach, Frederick M.; Frogge, William F.; Long, Edward L.; and Riggen, Winnifred, to Bell Telephone Laboratories, Incorporated. Switched-access system for testing circuit legs such as communication lines. 3,525,822, 8-25-70, Cl. 179-165.3

Barbas, Joseph, Jr.; and Watrous, William N., to Weston Instruments, Inc. Instrument with adjustable index. 3,520,600, 7-14-70, Cl. 353-40.

Barbashev, Eduard Valentinovich: *See—*
Glider, Evgeny Khaimovich; Gradov, Oleg Borisovich; Karpman, David Bentsionovich; Konovalov, Boris Leonidovich; Spivak, Boris Volikovich; Chigirinsky, Alexandr Abramovich; Grinchenko, Nikolai Grigorievich; Stanislavsky, Lazar Yankelevich; Kildishev, Vasily Semenovich; Danko, Vladimir Grigorievich; Vorobiev, Valentin Fedorovich; Barbashev, Eduard Valentinovich; and Juditskaya, Ljubov Alexandrovna,3,526,794.

Barbeto, Alexander Louis: *See—*
Messner, Georg; Barbato, Alexander Louis; Laub, Henry William; and Lofthield, Richard Eric,3,499,829.

Barbaut, Michel: *See—*
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Barbay, Joseph E., Jr., to Teletype Corporation. Variable range limiter circuit. 3,525,879, 8-25-70, Cl. 307-237.

Barbee, Floyd R., 1/2 to Ruiz, Alexander. Collapsible clothes support. 3,507,402, 4-21-70, Cl. 211-178.

Barbee, John P.: *See—*
Wright, Robert R.; Barbee, John P.; and Kucera, Clement M.,3,517,953.

Barbehenn, Herbert S.; Dotson, Billy R.; and Williams, Robert F., Jr., to Eastman Kodak Company. Multilayer films for overwrapping and process for producing same. 3,503,786, 3-31-70, Cl. 117-76.

Barbehenn, Herbert S.: *See—*
William, Robert F., Jr.; and Barbehenn, Herbert S.,3,549,403.

Barber, Alfred W. Analog device for multiplying/dividing using photoconductive means. 3,497,717, 2-24-70, Cl. 307-229.

Barber, Alfred W. Analog multiplying/dividing devices using photoconductive means. 3,525,860, 8-25-70, Cl. 235-195.

Barber, Alfred W., to Forbro Design Corporation. Complementary tracking outputs from single-ended amplifiers having a common lead with a single-ended input. 3,528,024, 9-8-70, Cl. 330-117.

Barber, Alfred W. Sound level indicator for the precise determination of sound levels. 3,545,564, 12-8-70, Cl. 181-0.5

Barber, Anthony Clifford; Hawtin, Laurence Reginald; and Lowe, Bryan Wilfred Hodson, to Imperial Metal Industries (Kynoch) Limited. Electrical conductors. 3,514,850, 6-2-70, Cl. 29-599.

Barber, Anthony Clifford; and Kelcher, Robert William, to Imperial Metal Industries (Kynoch) Limited. Superconductor cable. 3,502,789, 3-24-70, Cl. 174-128.

Barber, Donald E., to Bucyrus-Erie Company. Control system for excavating machinery. 3,518,444, 6-30-70, Cl. 290-14.

Barber, Donald Robert, to International Standard Electric Corporation. Amplifier regulator employing an electrolytic variable resistance device. 3,510,793, 5-5-70, Cl. 330-52.

Barber, Donald Treadgold; and Scrymgeour, Thomas Charles. Filing system index indicators and method of producing same. 3,504,907, 4-7-70, Cl. 270-1.

Barber, Everett M.; Brandenburg, John T.; and Frost, Richard A., to Texaco Inc. Catalytic muffler construction for exhaust emissions control in an internal combustion engine system. 3,495,950, 2-17-70, Cl. 23-288.

Barber, Gerald L. Amusement ride. 3,495,823, 2-17-70, Cl. 272-29.

Barber, Gerald L. Vehicle, especially for an amusement ride or the like. 3,529,816, 9-22-70, Cl. 272-29.

Barber, Harry A.: *See—*
Smith, Fred T.; Barber, Harry A.; and Zink, Ben J.,3,545,599.

Barber, Justus C.; and Jenkins, Theron W., Jr., to Leeds & Northrup Company. Boiler control system. 3,545,207, 12-8-70, Cl. 60-106.

Barber Machinery Co., Ltd.: *See—*
Kutryk, Edward A., 3,548,704.

Barber Manufacturing Company, The: *See—*
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Barber, Mark R., to Bell Telephone Laboratories, Incorporated. Circuits using domain propagating diodes. 3,543,178, 11-24-70, Cl. 331-57.

Barber, Mark R.; and Fisher, Reed E., to Bell Telephone Laboratories, Incorporated. Circuits using two-valley semiconductor devices. 3,548,339, 12-15-70, Cl. 331-107.

Barber, Neville Charles: *See—*
Ingless, Roy; King, Norman Arthur Beaumont; Castle, John Cecil; and Barber, Neville Charles,3,529,347.

Barber, Robert O.; and Anderson, William C., to Ingersoll-Rand Company. Spark ignition control system. 3,543,738, 12-1-70, Cl. 123-117.

Barber, Ronald N.; and Madden, James E., to I.W.S. Nominee Company Limited. Continuous process for treating wool with chlorocyanurate. 3,521,997, 7-28-70, Cl. 8-127.6

Barber, Stephen W.; and Nelson, William F., to Owens-Illinois, Inc. Process for preparing rare earth doped luminescent silica glass. 3,527,711, 9-8-70, Cl. 252-301.4

Barber, Theodore C. Automatic fluid flow control apparatus. 3,550,613, 12-29-70, Cl. 137-113.

Barber, Warren A.: *See—*
Davis, Charles H.; Barber, Warren A.; and Lambros, Daniel H.,3,498,339.

Barber, Wayne H., to General Signal Corporation. Override-nullifying scheme for train control system. 3,539,226, 11-10-70, Cl. 303-20.

Barber, William Austin: *See—*
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Barber-Colman Company: *See—*
AuMiller, Clyde F., 3,526,417.
Day, Donald W., 3,546,612.
De Hart, Dale M., 3,506,852.
Gould, Raymond T., 3,500,535.
Grove, Newell Clark, 3,529,811.
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Kohlbeck, Orin J.; and Sweger, Russell P., 3,517,881.
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Wekler, Oscar L., 3,538,410.
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Barber-Greene Company: *See—*
Archer, Fred Curtis; DeDiemar, Ronald B.; and Schuman, Le Roy J., 3,533,568.
Smith, Fred T., 3,500,563.
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Smith, Fred T., 3,500,987.
Smith, Fred T., 3,500,988.
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Smith, Fred T., 3,509,648.
Smith, Fred T.; Barber, Harry A.; and Zink, Ben J., 3,545,599.

Barbero, Ricardo J.; and Lowstuter, William Robert, to Hercules Incorporated. Rocket propellant. 3,529,551, 9-22-70, Cl. 102-101.

Barbier, Jean Y.; and Papke, Elizabeth J., to Intertherm Inc. Electric heater adapted for vertical installation and utilizing heated water and forced air circulation. 3,500,015, 3-10-70, Cl. 219-341.

Barbier, Maurice; and Sayous, Leon, to Societe Nationale des Petroles d'Aquitaine. Method of exploration by transmission of mechanical waves installation for carrying out the method and the applications thereof. 3,517,380, 6-23-70, Cl. 340-15.5

Barbieri, Frank. Apparatus for protecting components of work performing vehicles. 3,503,531, 3-31-70, Cl. 214-83.3

Barbieri, John D.; Xenakis, James A.; and Chang, Nai-Chong, to Sperry Rand Corporation. Velocity and distance measuring device. 3,527,104, 9-8-70, Cl. 73-490.

Barbieri, Siegfried; and Durst, Gilbert, to Durst AG, Fabrik Fototechnischer Apparate. Electronic focusing arrangement for photographic enlargers. 3,551,047, 12-29-70, Cl. 355-59.

Barbin, Robert Lloyd, to RCA Corporation. Geodesic electromagnetic deflection yoke. 3,488,541, 1-6-70, Cl. 313-76.

Barbin, Robert L.: *See—*
Thompson, Ira F.; and Barbin, Robert L.,3,495,124.

Barbini, Spartacus H., to Compagnie Generale d'Electricite. Laser controlled spark-gap means for a circuit for providing a magnetic field. 3,504,232, 3-31-70, Cl. 315-238.

Barbini, Spartacus, to Compagnie Generale d'Electricite. Multiple capacitor. 3,505,575, 4-7-70, Cl. 317-242.

Barbini, Spartacus, to Compagnie Generale d'Electricite. Shock-wave generator. 3,517,256, 6-23-70, Cl. 315-155.

Barbini, Spartacus, to Compagnie Generale d'Electricite. Triggering device for spark-gap. 3,524,101, 8-11-70, Cl. 315-150.

Barbini, Spartacus, to Compagnie Generale d'Electricite. Laser beam for triggering a spark gap at high rate. 3,526,807, 9-1-70, Cl. 315-150.

Barbini, Spartacus, to Compagnie Generale d'Electricite. Surge generator. 3,538,343, 11-3-70, Cl. 307-110.

Barbod, Hooshang: *See—*
Campman, Arthur R.; and Barbod, Hooshang,3,491,956.

Barbour, James W.; and Porter, Lawrence B., to Mohr, John, & Sons. Apparatus for removing heads from birds. 3,514,809, 6-2-70, Cl. 17-12.

Barbour, William P., to Farrington Business Machines Corporation. Interlock assembly in traveling platen roller imprinting machines having settable type wheels. 3,515,060, 6-2-70, Cl. 101-45.

Barbour, William P., to Farrington Business Machines Corporation. Digit wheel assembly. 3,521,556, 7-21-70, Cl. 101-110.

Barbour, William P., to Farrington Business Machines Corporation. Platen roller printing machines with printing plate support means. 3,521,562, 7121-70, Cl. 101-269.

Barbour, William P., to Control Data Corporation. Latch means for a traveling roller platen on a swingable carriage. 3,538,848, 11-10-70, Cl. 101-269.

Barchok, Donald J., to Admiral Corporation. Transistor switching circuit. 3,546,492, 12-8-70, Cl. 307-300.

Barcik, Charles P.: *See—*
Guenther, Louis F.; and Barcik, Charles P.,3,538,725.

Barclay, Ralph R., to Minnesota Mining and Manufacturing Company. Frequency converter particularly PAL sync generator. 3,549,792, 12-22-70, Cl. 178-5.4

Barclay, William F.: *See—*
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Barcomb, James G.; and Schaaf, Frederick W., to International Business Machines Corporation. Forms velocity control for printers. 3,511,354, 5-12-70, Cl. 197-133.

Barcus, Edward L., to General Motors Corporation. Non-glare mirror. 3,497,292, 2-24-70, Cl. 350-281.

Barcus, Edward L.; and Clayton, David P., to General Motors Corporation. Rearview mirror with map light. 3,543,018, 11-24-70, Cl. 240-4.2

Barcus, Edward L.; and Roof, James A., to General Motors Corporation. Push-pull non-glare mirror. 3,495,896, 2-17-70, Cl. 350-281.

Barcus, Jack L., to Mattel, Inc. Random sound reproduction means in a toy. 3,532,345, 10-6-70, Cl. 274-1.

Barcus, Jack L.; and Marshall, James E., to Mattel, Inc. Random playback mechanism for a phonograph. 3,532,346, 10-6-70, Cl. 274-1.

Barcus, Jack L.: *See—*
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Barcus, Lester M.; and Berry, John F. Electrical pickup located in mouthpiece of musical instrument utilizing piezoelectric transducer. 3,543,629, 12-1-70, Cl. 84-1.14

Barcza, Sandor, to Sandoz-Wander, Inc. Silicon-containing steroids. 3,529,005, 9-15-70, Cl. 260-448.2

Barcza, Sandor, to Sandoz-Wander, Inc.17α-Carboethynyl-3,17β-estradiol derivatives. 3,531,569, 9-29-70, Cl. 424-241.

Barcza, Sandor, to Sandoz-Wander, Inc. 3-Alkylsulfenylpropenoic acid ester-substituted steroids. 3,542,922, 11-24-70, Cl. 424-238.

Bard, C. R., Inc.: *See—*
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Taterka, Michael, 3,533,548.
Vaillancourt, Vincent L.; and Walck, George A., III, 3,513,849.
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Vaillancourt, Vincent L., 3,529,633.
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Bard, Martin: *See—*
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Bard, Martin. Shelf-supporting standard with removable head. 3,502,293, 3-24-70, Cl. 248-243.

Bardeau, William M. Coated grilling surfaces. 3,493,726, 2-3-70, Cl. 219-443.

Bardeau, William M.; Schwarzl, Joseph; and Butler, Gordon W., to Connolly, John J., mesne. Utensil. 3,490,358, 1-20-70, Cl. 99-353.

Bardeau, William M.: *See—*
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Bardell, Paul H.: *See—*
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Bardell, Ralph V., to Growth International Industries Corporation. Container and closure herefor. 3,519,163, 7-7-70, Cl. 220-60.

Barden Corporation, The: *See—*
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Mc Kee, Lewis W., 3,532,401.
McKee, Lewis W., 3,506,316.
McKee, Lewis W., 3,510,185.
McKee, Lewis W., 3,529,875.

Barden, Kenneth L.; Furey, Daniel J.; and Sankey, Edwin W., to Marion Power Shovel Company, Inc. Walking mechanism assembly. 3,500,945, 3-17-70, Cl. 180-8.

Barden, Wayne A.; and Arisman, Mervin B., to CTS Corporation. Snap action switch and combination switch and variable resistance control. 3,510,613, 5-5-70, Cl. 200-67.

Barden, Wayne A.; Van Benthuysen, John D.; and Zdanys, John, Jr., to CTS Corporation. Variable resistance control. 3,550,059, 12-22-70, Cl. 338-176.

Bardenhagen, Dietrich: *See—*
Niemann, Helmut; and Bardenhagen, Dietrich,3,518,911.

Bardfeld, Wilhelm. Shifting devices. 3,500,669, 3-17-70, Cl. 70-216.

Bardgette, John J., to Esso Production Research Company. Method and apparatus for installing anchor piles. 3,525,224, 8-25-70, Cl. 61-46.

Bardgette, John J.; and Moody, Luther S., to Esso Production Research Company. Pressurized repair clamp for pipeline. 3,496,963, 2-24-70, Cl. 138-99.

Bardgette, John J.; and Ruez, William J., III, to Esso Production Research Company. Lateral restraint of pile within jacket leg. 3,550,384, 12-29-70, Cl. 61-46.

Bardgette, John J.; Ruez, William J., III; and Moody, Luther S., to Esso Production Research Company. Pile-to-jacket connector. 3,512,811, 5-19-70, Cl. 285-286.

Bardin, Jacques, to Fabriques Reunies de Lampes Electriques. Electric incandescent lamp having an external screen and operable with a reflector. 3,518,478, 6-30-70, Cl. 313-117.

Bardo, Gerald B. Apparatus for wiring personalized core storage arrays. 3,529,341, 9-22-70, Cl. 29-203.

Bardon, Maurice, to Teppaz S.A. Sound recording and reproducing magnetophones. 3,529,833, 9-22-70, Cl. 274-4.

Bardons & Oliver, Inc.: *See—*
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Bardos, Andras M.: *See—*
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Bardsley, Donald E.: *See—*
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Vore, Herbert G.; Bardsley, Donald E.; and Owler, Robert N.,3,540,082.

Bardsley, Robert F.; Bower, Harvey S.; and Katz, Saul, to General Foods Corporation. Tubular freeze-drying condenser. 3,543,411, 12-1-70, Cl. 34-92.

Bardwell, Allen E., to Trident Industries, Inc., mesne. Drill bit with staggered teeth. 3,545,554, 12-8-70, Cl. 175-398.

Bardwell, Allen Eugene, to Trident Industries, Inc., mesne. Expandable drill bit and reamer construction. 3,522,852, 8-4-70, Cl. 175-384.

Barecki, Chester J.; and Henrikson, Bror W., to American Seating Company. Safety vehicle. 3,534,979, 10-20-70, Cl. 280-150.

Barecki, Chester J.; and Hogan, Arthur J., Jr., to American Seating Company. Safety vehicle seat. 3,523,710, 8-11-70, Cl. 297-456.

Barecki, Chester J.; and McKernan, Thomas J., to American Seating Company. Shock-absorbing seat. 3,493,211, 2-3-70, Cl. 248-399.

Barefield, William A., to Jewell, J. D., Inc. Method for opening the body cavity of a poultry carcass. 3,518,718, 7-7-70, Cl. 17-52.

Barefoot, Charles A. Electromagnetic catheter blood flow probe. 3,487,826, 1-6-70, Cl. 128-2.05

Barefoot, Charles A. Electromagnetic catheter blood flow probe. 3,516,399, 6-23-70, Cl. 128-2.05

Bareis, Marvin A., to Kellwood Company. Boat light cover. 3,491,388, 1-27-70, Cl. 9-1.

Barenyi, Bela, to Daimler-Benz Aktiengesellschaft. Driver safety device for motor vehicle. 3,498,402, 3-3-70, Cl. 180-90.

Barenyi, Bela, to Daimler-Benz Aktiengesellschaft. Passenger motor vehicle with upwardly swingable pivotal lateral doors. 3,511,530, 5-12-70, Cl. 296-146.

Barenyi, Bela, to Daimler-Benz Aktiengesellschaft. Safety steering wheel for motor vehicles. 3,528,314, 9-15-70, Cl. 74-552.

Barenyi, Bela, to Daimler-Benz Aktiengesellschaft. Safety steering system for motor vehicles, especially for passenger motor vehicles. 3,534,628, 10-20-70, Cl. 74-492.

Barenyi, Bela; and Wilfert, Karl, to Daimler-Benz Aktiengesellschaft. Safety steering wheel for motor vehicles. 3,546,964, 12-15-70, Cl. 74-552.

Barenyi, Bela: *See—*
Wilfert, Karl; and Barenyi, Bela,3,507,164.
Wilfert, Karl; and Barenyi, Bela,3,507,165.

Barfield, Jesse P., Jr., to Celanese Corporation. Reactor for conducting controlled-temperature gas phase reactions with mixing. 3,522,017, 7-28-70, Cl. 23-277.

Barfred, Niels Georg. Candle milling machine. 3,494,254, 2-10-70, Cl. 90-14.

Barfred, Niels Georg. Method and apparatus for the production of a candle material granulate. 3,531,559, 9-29-70, Cl. 264-144.

Barg, Dora A. Brassieres. 3,518,998, 7-7-70, Cl. 128-513.

Barg, William Frederic, Jr.: *See—*
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Bargen, David W.; Russell, Robert H.; and Zollinger, Richard J., to Whittaker Corporation, mesne. Transducer output correction circuitry. 3,510,696, 5-5-70, Cl. 307-308.

Barger, Bion D., Jr.; Hengstebeck, Robert J.; Moore, Thomas M.; and Russum, Leonard W., to Standard Oil Company (Indiana). Two-stage conversion of nitrogen contaminated feedstocks. 3,506,567, 4-14-70, Cl. 208-89.

Barger, John W.; and Mumma, Charles E., to Agriculture and Economic Development of Nebraska, Department of. Method of making amylostic filaments and fibers. 3,499,074, 3-3-70, Cl. 264-204.

Barger, Lloyd D., to Barger Manufacturing Company, Inc. Automatic lubricator for air starters. 3,489,246, 1-13-70, Cl. 184-6.

Barger, Lloyd D., 1/2 to Sather, Robert O. Means for inducing the flow of material through a storage tank or the like. 3,525,445, 8-25-70, Cl. 214-17.

Barger Manufacturing Company, Inc.: *See—*
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Bargh, Pickard F., to Farrington Electronics Inc. Reading apparatus for two or more different size type fonts. 3,522,437, 8-4-70, Cl. 250-219.

Bargh, Pickard F.: *See—*
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Barghini, Robert J.; and Clayton, Russell F., to Minnesota Mining and Manufacturing Company. Animal mask. 3,491,755, 1-27-70, Cl. 128-212.

Barham, Mary Lea. Book trucks. 3,487,945, 1-6-70, Cl. 211-43.

Barhorst, Robert C., to Glebar Company, Inc. Centerless grinder. 3,534,507, 10-20-70, Cl. 51-103.

Barich, John J.: *See—*
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Barie, Walter P., Jr.; and Franke, Norman W., to Gulf Research & Development Company. Epoxy resin-biphenyl anhydride adhesive compositions. 3,502,609, 3-24-70, Cl. 260-37.

Barie, Walter P., Jr.; and Franke, Norman W., to Gulf Research & Development Company. Unsaturated polyester resins containing tetracarboxylic acids or dianhydrides. 3,535,404, 10-20-70, Cl. 260-871.

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Barjot, Michel Francois; Chatelon, Andre Edouard Joseph; and Girard, Pierre, to International Standard Electric Corporation. System for processing NRZ PCM signals. 3,537,100, 10-27-70, Cl. 340-347.

Barkan, Philip; and Greenwood, Allan N., to General Electric Company. High voltage D-C circuit breaker. 3,548,256, 12-15-70, Cl. 317-11.

Barke, John L.; Du Vivier, Charles L.; Odion, John R.; and Pallat, Ludwig R., to Lee Corporation. Expressway ramp traffic control system. 3,518,622, 6-30-70, Cl. 340-36.

Barkeling, Sven Erik Julius. Boat landing stages and the like. 3,488,968, 1-13-70, Cl. 61-48.

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Barker, Charles T., to Pelton & Crane Company, The. Dental operatory. 3,524,256, 8-18-70, Cl. 32-22.

Barker, Clifford L. Fittings for mounting accessories on walls and like supports. 3,499,626, 3-10-70, Cl. 248-314.

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Barker, Dennis Walter, to Edwards High Vacuum International Limited. Apparatus for the vaporisation of metals or metalloids. 3,539,769, 11-10-70, Cl. 219-275.

Barker, Eugene Thomas, to Boye Needle Company, The. Latch hook device. 3,541,980, 11-24-70, Cl. 112-80.

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Barker, George E., to Monsanto Company. Pulsed solenoid control valve. 3,523,676, 8-11-70, Cl. 251-141.

Barker, George E., to Monsanto Company. Temperature control system. 3,545,676, 12-8-70, Cl. 236-75.

Barker, George E., to Monsanto Company. Automatic ranging circuitry. 3,551,839, 12-29-70, Cl. 330-99.

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Barker, John L.; DuVivier, Charles L.; and Pallat, Ludwig R., to LFE Corporation. Expressway ramp traffic control system. 3,508,191, 4-21-70, Cl. 340-36.

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Barker, Robert A., to Eltra Corporation. Ignition cable with terminal construction. 3,518,606, 6-30-70, Cl. 338-270.

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Barkey, Kenneth T.; and Predmore, Walter L., Jr., to Eastman Kodak Company. Process for removing metallic antimony from polyester prepolymers. 3,497,477, 2-24-70, Cl. 260-75.

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Barnes, Charles H. Refuse collection vehicle. 3,498,487, 3-3-70, Cl. 214-518.
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Barnum, John J., to Sybron Corporation. Washing machine transfer valve. 3,529,773, 9-22-70, Cl. 239-204.
Barnum, Le Roy Harold: *See—*
Berry, John William; Herrmann, Raymond Anthony; and Barnum, Le Roy Harold,3,512,003.
Barnum, Thomas G., to General Motors Corporation. Safety lamp circuit for serially connected vehicle lamps. 3,535,585, 10-20-70, Cl. 315-83.
Barogenics, Inc.: *See—*
Birman, George, 3,491,565.
Baron, Alfred Morton. Connector assembly for fluid conduits. 3,501,171, 3-17-70, Cl. 285-52.
Baron, Andrew, Limited: *See—*
Hardaker, Fred, 3,530,604.
Baron, Anthony V.; Drewry, Hugh S.; and Lees, John N., Jr., to Allis-Chalmers Manufacturing Company. Valve and valve control for preventing passage of processed material to blower for pyrometer sight passage on a rotary kiln. 3,515,379, 6-2-70, Cl. 263-33.
Baron, Arthur L., to Celanese Corporation. Process for removing high boiling solvents from polymer products. 3,532,677, 10-6-70, Cl. 260-79.3
Baron Blakeslee, Inc.: *See—*
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Baron, David G.; and Ruoff, Carl E., to International Business Machines Corporation. Inflatable probe apparatus for uniformly contacting and testing microcircuits. 3,493,858, 2-3-70, Cl. 324-72.5
Baron, George B., to Marion Power Shovel Company, Inc. Power shovel. 3,501,034, 3-17-70, Cl. 214-138.
Baron, George B., to Marion Power Shovel Company, Inc. Walking mechanism and control therefor. 3,512,597, 5-19-70, Cl. 180-8.
Baron, Gerhard; Kapp, Ernst; Dernbach, Heribert; Bieger, Franz; and Kohlen, Rudolf, to Metallgesellschaft Aktiengesellschaft, and Ruhrgas Aktiengesellschaft. Production of carbon monoxide and hydrogen. 3,540,867, 11-17-70, Cl. 48-197.
Baron, Heinrich; Kath, Joachim; and Doeller, Wilhelm, to Merck, E., A.G. 1,3-Bis-(5-sulfobenzimidazolyl-2)-benzene and salts thereof. 3,536,730, 10-27-70, Cl. 260-309.2
Baron, Herschel: *See—*
Schwenk, Arthur; Wajda, Michael L.; Baron, Herschel; and Jacobs, Herbert V.,3,539,177.
Baron, Karl-Heinz; and Wieters, Erich, to Merck, E., AG. Chromatographic adsorbents. 3,535,265, 10-20-70, Cl. 252-301.3
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Baron, Lawrence D. Tool. 3,509,787, 5-5-70, Cl. 81-119.
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Baron, Rudolf; and Thate, Kurt, to Agfa-Gevaert Aktiengesellschaft. Exposure control for photographic apparatus. 3,547,022, 12-15-70, Cl. 95-64.
Baron, Thomas Douglas; and Fishwick, Brian Ribbons, to Imperial Chemical Industries Limited. Water-insoluble azo dyestuffs. 3,522,235, 7-28-70, Cl. 260-207.

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Marullo, Gerlando; Baroni, Alessandro; Maffezzoni, Umberto; Susa, Ermanno; and Longiave, Carlo,3,502,637.
Baronnier, Jean Henri; and Pagni, Georges, to Rhone-Poulenc S.A. Organotrisiloxanes and their preparation. 3,541,126, 11-17-70, Cl. 260-448.8
Baronnier, Jean; and Boissieras, Jean, to Rhone-Poulenc. Organosilicon resins containing vinyl groups. 3,546,156, 12-8-70, Cl. 260-37.
Barouh, Victor: *See—*
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Barowski, Karl-Heinz, to Braun Aktiengesellschaft. Oscillating motor structure. 3,538,359, 11-3-70, Cl. 310-29.
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Barr, Peter Joachim, 3,518,772.
Barr & Stroud Limited: *See—*
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Ritchie, David S., 3,516,748.
Barr, Arthur C. Nursing unit with venting means. 3,545,637, 12-8-70, Cl. 215-11.
Barr, Arthur C.; and Johnson, Frederick M. Disposable infant feeding package and method of making. 3,495,993, 2-17-70, Cl. 99-171.
Barr, Courtland H., Jr.: *See—*
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Barr, Courtland H., Sr.; Barr, Courtland H., Jr.; and Barr, John W., to Abbott Laboratories, mesne. Unitized needle and holder. 3,520,292, 7-14-70, Cl. 128-2.
Barr, Harold N.; and Picha, Albert L., to Teledyne, Inc., mesne. Process for applying metal and metallic alloy coatings on sieve size discrete nuclear fuel particles. 3,494,785, 2-10-70, Cl. 117-100.
Barr, Harry S., Jr.; Bess, William C., Jr.; Morrow, Alfred C.; and Hocutt, Rudolph Hovan, to Pneumafil Corporation. Roll clearing. 3,541,630, 11-24-70, Cl. 15-308.
Barr, Irwin R., to AAI Corporation. Dual-wheeled unit independent suspension for cross- country vehicle. 3,495,672, 2-17-70, Cl. 180-48.
Barr, Irwin R., to AAI Corporation. Directional dispensing grenade with externally open, integrally-formed and internally closed,. 3,512,480, 5-19-70, Cl. 102-64.
Barr, Irwin R., to United States of America, Army, mesne. Tracer projectile. 3,515,072, 6-2-70, Cl. 102-87.
Barr, Irwin R., to AAI Corporation. Stripper shredder for frangible sabots. 3,533,325, 10-13-70, Cl. 89-14.
Barr, Irwin R., to AAI Corporation. Apparatus for molding articles. 3,550,210, 12-29-70, Cl. 18-34.
Barr, James M.: *See—*
Hardison, Leslie C.; Pegg, Edward H. R.; Reedy, Dom E.; and Barr, James M.,3,546,851.
Barr, John D., to Rank Organisation Limited, The. Video monitor indicating means. 3,502,804, 3-24-70, Cl. 178-6.8
Barr, John Denzil; and Plummer, Dexter Robert, to Rank Organisation Limited, The. Camera systems. 3,541,941, 11-24-70, Cl. 95-45.
Barr, John Denzil; and Plummer, Dexter Robert, to Rank Organisation Limited, The. Control systems. 3,548,731, 12-22-70, Cl. 95-45.
Barr, John W.: *See—*
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Barr, Peter Joachim, to Barr & Murphy Ltd. Apparatus for drying finely divided heat sensitive particles. 3,518,772, 7-7-70, Cl. 34-10.
Barr, Robert A.; and Chung, Chan Il, to Midland-Ross Corporation. Auger-type extruder. 3,487,503, 1-6-70, Cl. 18-12.
Barr, Robert O., to Sylvania Electric Products, Inc. Cathode ray tube with bifurcated contact spring between the shadow mask frame and the internal conductive coating. 3,541,373, 11-17-70, Cl. 313-85.
Barragan Y Sebastian, Manuel. Apparatus for excavating channels of semi-circular cross section. 3,491,466, 1-27-70, Cl. 37-93.
Barratt, Robert O., to Foster Wheeler Corporation. Sodium heated steam generator. 3,536,047, 10-27-70, Cl. 122-32.
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Barrere, Clem A., Jr.; and Lohrenz, John, to Continental Oil Company. Method and apparatus for controlling cyclic sorptive processes. 3,540,188, 11-17-70, Cl. 55-20.
Barrett, Cedric A.; and Newell, James J., to Pall Corporation, mesne. Self purging hydraulic cylinder. 3,496,838, 2-24-70, Cl. 92-79.
Barrett, Don C. Shopping reminder. 3,537,198, 11-3-70, Cl. 40-77.
Barrett, Donovan L., to Westinghouse Electric Corporation. Nucleation chamber for crystal growth. 3,525,594, 8-25-70, Cl. 23-273.
Barrett, Edward J.; and Powers, John C., Jr. Space-filling atomic and molecular orbital model sets. 3,524,267, 8-18-70, Cl. 35-18.
Barrett, Edward L. Brushless alternator. 3,493,800, 2-3-70, Cl. 310-168.
Barrett, George M. Binary digital transducer. 3,548,714, 12-22-70, Cl. 91-36.
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Barrett, Harold F.; Schneider, Donald J.; Strickland, Marion C.; and Childers, James H., to Barrett, Harold F., and Fusco, Anthony. Method and apparatus for making fermentable beverages. 3,528,817, 9-15-70, Cl. 99-35.
Barrett, John J. Spring type female bustline muscle exerciser. 3,544,106, 12-1-70, Cl. 272-83.
Barrett, Lynne E.; and Mason, Adele J. Extensible and contractile file folders. 3,494,637, 2-10-70, Cl. 281-45.
Barrett, Monroe C.: *See—*
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Barrett, Paul Anthony, to Burroughs Wellcome & Co., (U.S.A.) Inc. Method of treating an animal suffering from anaplasmosis and piroplasmosis. 3,505,456, 4-7-70, Cl. 424-323.
Barrett, Paul C.; and Kolar, Robert J., to General Tire & Rubber Company, The. Self-sealing valve assembly. 3,498,321, 3-3-70, Cl. 137-525.
Barrett, Philip Claud. Wind direction indicating runway marker. 3,537,310, 11-3-70, Cl. 73-188.
Barrett, Robert E., to Copolymer Rubber & Chemical Corporation. Oil and ozone resistant elastomer blends comprising EPDM rubber. 3,492,371, 1-27-70, Cl. 260-889.
Barrett, Robert E., to United States of America, Navy, mesne. Underwater long-distance sound-detection system. 3,517,378, 6-23-70, Cl. 340-5.
Barrett, Robert E.; and Regira, Lawrence J., to Copolymer Rubber & Chemical Corporation. Preparation of rubber modified plastics. 3,538,194, 11-3-70, Cl. 260-879.
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Meredith, Curtis L.; Barrett, Robert E.; and Bishop, William A., Sr.,3,538,191.
Barrett, Roert E., to Copolymer Rubber & Chemical Corporation. Process for suppressing molecular jump. 3,514,426, 5-26-70, Cl. 260-41.5
Barrett, Walter Raymond, Jr.: *See—*
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Barrett, Walter R.: *See—*
McConnell, Robert C.; and Barrett, Walter R.,3,511,298.
Barrett, William G.; and Rowland, Richard C., to United States of America, Navy, mesne. Tolerance computer. 3,538,316, 11-3-70, Cl. 235-177.
Barriball, Richard D., to General Electric Company. Apparatus for starting and operating electric discharge lamps. 3,501,728, 3-17-70, Cl. 336-155.
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Gardiner, Peter, 3,514,312.
Barringer, Anthony Rene, to Barringer Research Limited. Supporting system for maintaining a pair of devices in a predetermined angular relationship with one another. 3,538,428, 11-3-70, Cl. 324-4.
Barringer, Anthony Rene, to Barringer Research Limited. Spatially dispersive correlation interferometer. 3,549,260, 12-22-70, Cl. 356-112.
Barringer, Anthony Rene; and Grimm, Volker, to Barringer Research Limited. Proton precession magnetometer with synchronous pumping. 3,546,574, 12-8-70, Cl. 324-0.5
Barringer, Anthony Rene; and Schock, Josef Pep, to Barringer Research Limited. Spectrometer. 3,518,002, 6-30-70, Cl. 356-97.
Barringer Research Limited: *See—*
Barringer, Anthony Rene; and Schock, Josef Pep, 3,518,002.
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Barringer, William Charles: *See—*
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Barrington, Alfred E., to United States of America, National Aeronautics and Space Administration. Leak detector wherein a probe gas is monitored with ultraviolet radiation. 3,549,882, 12-22-70, Cl. 250-43.5
Barrington, Burchus Q., to Halliburton Company. Well tool with hydraulic impedance mechanism. 3,499,487, 3-10-70, Cl. 166-237.
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Barrington, Jonathan; and Wahlers, Richard L., to TRW Inc. Nonlinear, voltage variable electrical resistor. 3,509,072, 4-28-70, Cl. 252-516.
Barriquand, Andre, to Etablissements Barriquand Freres. Apparatus for the liquid treatment of a circulating band of material in a bath. 3,501,931, 3-24-70, Cl. 68-177.
Barroero, Louis F. Device for selectively holding a door open. 3,512,820, 3-19-70, Cl. 292-270.
Barroero, Louis F. Mechanism for closing a door. 3,512,859, 5-19-70, Cl. 312-305.

Barron, Charles D., to Jackson, Byron, Inc. Apparatus for mixing pulverulent material with liquid. 3,542,342, 11-24-70, Cl. 259-4.
Barron, Charles D.; and Sheldon, Loren B., to Jackson, Byron, Inc. Densimeter and actuator. 3,541,863, 11-24-70, Cl. 73-434.
Barron, Daniel. Circular sonar slide rule. 3,516,602, 6-23-70, Cl. 235-88.
Barron, Daniel. Range computer. 3,518,894, 7-7-70, Cl. 74-413.
Barron, Joseph E.; Fox, Donald F.; Soboleski, Adam H.; and Ames, Ronald B., to Uniroyal, Inc. Synergistic herbicidal composition of sodium N- naphthyl phthalamic acid and 4-(methylsulfonyl)-2,6-dinitro-N,N-dipropylaniline. 3,537,840, 11-3-70, Cl. 71-103.
Barron, Maurice. Slip forming apparatus and method. 3,497,579, 2-24-70, Cl. 264-33.
Barron, Robert H. Method for producing a shell faced mold. 3,511,302, 5-12-70, Cl. 164-24.
Barron, Roger L., to Adaptronics, Inc. Self-organizing control system for providing multiple-goal, multiple-actuator control. 3,519,998, 7-7-70, Cl. 340-172.5
Barron, Russell K. Methods for forming articles of simulated stone. 3,544,674, 12-1-70, Cl. 264-255.
Barrow, George E. Vaporization plate and fluid filter. 3,550,781, 12-29-70, Cl. 210-180.
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Barrows, William F. Physiological parameter measuring system. 3,534,728, 10-20-70, Cl. 128-2.06
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Barry, George D.; Soukup, Fabian F.; and Rankin, James E. Bowling pin handling and setting apparatus with trap door pin release. 3,497,219, 2-24-70, Cl. 273-43.
Barry, James H., Jr.; Di Verdi, Joseph M.; Temple, John P.; and Petitto, Albert C., to Foster Grant Co., Inc. Pallets. 3,511,191, 5-12-70, Cl. 108-58.
Barry, James S., 1/2 interest each to International Paper Company, and Stanley Works, The. Open-topped trailer cover. 3,521,927, 7-28-70, Cl. 296-100.
Barry, John K., to Southco, Inc. Press insert. 3,498,353, 3-3-70, Cl. 151-41.73
Barry, Leonard D. Unit load hold-down and releasing lift. 3,528,569, 9-15-70, Cl. 214-38.
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Schwartz, Harold O.; Machanian, William V.; and Barry, Robert D.,3,544,698.
Barry, Robert O.; and Watson, John F. Post mower. 3,526,083, 9-1-70, Cl. 56-25.4
Barry, Thomas L., to Sylvania Electric Products, Inc. Phosphors and their preparation. 3,505,240, 4-7-70, Cl. 252-301.4
Barry, Thomas L., to Sylvania Electric Products, Inc. Europium-activated alkaline earth orthosilicate phosphor. 3,544,481, 12-1-70, Cl. 252-301.4
Barry, Thomas L., to Sylvania Electric Products, Inc. Europium and manganese activated alkaline earth silicate phosphors. 3,544,482, 12-1-70, Cl. 252-301.4
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Babunovic, Momir; Kay, John C.; and Shea, Jerome F., 3,523,604.
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Barsamian, Barsam; and Barsamian, Harut,3,523,379.
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Barsby, James B.; and Whittington, Charles E. Tracing valve. 3,523,672, 8-11-70, Cl. 251-3.
Barsness, John G. Box closure fastening. 3,545,801, 12-8-70, Cl. 292-288.
Barson, Fred; and Dhaka, Vir A., to International Business Machines Corporation. Method of making high frequency transistors. 3,489,622, 1-13-70, Cl. 148-187.
Barson, Fred; Kuehn, Richard T.; and Palmer, Myron D., to International Business Machines Corporation. Method for etching an opening in an insulating layer without forming pinholes therein. 3,518,084, 6-30-70, Cl. 96-36.2
Barstow, Frederick E.; Larson, Paul; and Salomon, Udo W., to United States of America, Navy, mesne. Retractable goggles for helmet. 3,548,411, 12-22-70, Cl. 2-6.
Barsukov, Albert Petrovich: *See—*
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Bart, Phillp D. Telephone lock. 3,495,050, 2-10-70, Cl. 179-189.
Bart, Philip D., to Remco Industries, Inc. Tumbling doll. 3,500,577, 3-17-70, Cl. 46-134.
Bart, Stanley, to Zenith Radio Corporation. Regulated power supply. 3,501,589, 3-17-70, Cl. 178-7.3
Bart, Theodore Ernest: *See—*
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Bartas, Jacob George, to General Electric Company. System and process for the indirect electro-chemical combination of air and a reformable fuel. 3,539,395, 11-10-70, Cl. 136-86.
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Bartel, Gunter Friedrich, to Elastomer A.G. Seat construction and the like. 3,534,129, 10-13-70, Cl. 264-45.
Bartel, Gunter, to Elastomer A.G., Firma. Device for the manufacture of synthetic mixtures from components of different viscosities. 3,519,015, 7-7-70, Cl. 137-563.
Bartelink, Dirk J.; and Chawla, Basant R., to Bell Telephone Laboratories, Incorporated. Electromagnetic wave amplifier including a negative resistance semiconductor diode structure. 3,526,844, 9-1-70, Cl. 330-5.
Bartell, Thomas O., to University of Colorado, The Regents of the. Dual purpose laundry carrier. 3,497,073, 2-24-70, Cl. 211-2.
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Barten, Piet Gerard Joseph, to U.S. Philips Corporation, mesne. Optical system for use in making color-phosphor mosaic screens. 3,504,599, 4-7-70, Cl. 95-1.
Barter, Le Roy, to Beckman Instruments, Inc. Speed control for D.C. motors with counter EMF sampling circuit. 3,525,915, 8-25-70, Cl. 318-341.
Barter, LeRoy D., to Beckman Instruments, Inc. Two transistor base-to-base driven switch. 3,549,902, 12-22-70, Cl. 307-243.
Barth, Arnold P.: *See—*
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Barth, Bruce P., to Union Carbide Corporation. Mixtures of polyarylene polyethers and alphaolefin/acrylonitrile copolymers. 3,510,415, 5-5-70, Cl. 204-159.2
Barth, Bruce P., to Union Carbide Corporation. Method of plating polyarylene polyethers, polycarbonate of polyhydroxyethers and the resulting articles. 3,518,067, 6-30-70, Cl. 29-195.
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Barth, Ross E.; and Viers, John T., to Crawford Fitting Company. Container. 3,487,921, 1-6-70, Cl. 206-65.
Barthalon, Maurice. Electromagnetic machines. 3,500,079, 3-10-70, Cl. 310-15.
Barthalon, Maurice. Suspended railway car fluidicly supported. 3,511,186, 5-12-70, Cl. 104-89.
Barthalon, Maurice. Fluid circulating apparatus for reciprocating machines. 3,538,357, 11-3-70, Cl. 310-16.
Barthalon, Maurice. Reciprocating electric motor. 3,542,495, 11-24-70, Cl. 417-416.
Barthel, Alfred, to Union Carbide Corporation. Spaced wall receptacle having wound composite insulation between the walls. 3,504,820, 4-7-70, Cl. 220-9.
Barthel, Fay E. Dust collector for drilling equipment. 3,499,181, 3-10-70, Cl. 15-339.
Barthel, Karl, to Heidelberger Druckmaschinen Aktiengesellschaft. Color printing rotary press with a match correction device in a transfer drum. 3,534,683, 10-20-70, Cl. 101-248.
Barthlome, Donald E., to United States of America, National Aeronautics and Space Administration. Equipotential space suit. 3,534,406, 10-20-70, Cl. 2-2.1
Barthlome, Donald E., to United States of America, National Aeronautics and Space Administration. Space suit pressure stabilizer. 3,534,407, 10-20-70, Cl. 2-2.1
Bartholomaus, Rainer: *See—*
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Bartholomaus, Rainer, to Gesellschaft Fuer Hydraulikzubehoer m.b.H., mesne. Pressure gauge and valve therefor. 3,511,273, 5-12-70, Cl. 137-557.

Bartholome, Ernst; Friz, Hans; Neumayr, Franz; Reichert, Martin; and Wagner, Ulrich, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of acetylene. 3,542,894, 11-24-70, Cl. 260-679.

Bartholomew, Donald Herbert, to Imperial Chemical Industries Limited. Amalgam process for preparing adiponitrile from acrylonitrile. 3,542,846, 11-24-70, Cl. 260-465.8

Bartholomew, Earl, to Ethyl Corporation. Carburetor. 3,523,680, 8-11-70, Cl. 261-23.

Bartholomew, Frederick O., to RCA Corporation. Switching circuit. 3,509,362, 4-28-70, Cl. 307-203.

Bartholomew, Graham Leslie: *See—*
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Bartholomew, Ronald Alfred: *See—*
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Bartholomew, Samuel W.: *See—*
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Barthrlon, Maurice. Suspended railway car fluidicly supported. 3,534,689, 10-20-70, Cl. 104-89.

Barthruff, Otto; and Ruehle, Walter, to Bosch, Robert, G.m.b.H. Electrical machine. 3,493,802, 2-3-70, Cl. 310-239.

Bartilson, Benjamin M., to Morton International, Inc. Top-to-container snap lock. 3,529,648, 9-22-70, Cl. 150-0.5

Bartilson, Benjamin M.; and Trumbull, Harold E., to Morton International, Inc. Plastic container top with combination closure and sprinkler. 3,499,588, 3-10-70, Cl. 222-556.

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Bartle, Ervin R., Jr.; Erickson, Paul R.; Meckstroth, Edgar A.; and Myers, Benjamin F., Jr., to United States of America, Army, mesne. Laboratory ozone generator. 3,511,768, 5-12-70, Cl. 204-321.

Bartles, Edward C.; and Fraim, Raymond A., to Eastman Kodak Company. Moisture control system. 3,518,775, 7-7-70, Cl. 34-48.

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Bartlett, Frederick Albert: *See—*
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Bartlett, Gary F., to Poly-Growers, Inc. Structure for holding flexible covers. 3,531,899, 10-6-70, Cl. 52-23.

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Batcho, Andrew David; and Leimgruber, Willy, to Hoffmann-La Roche Inc. Process for the preparation of pyrrolo-benzodiazepine acrylamides and intermediates useful therein. 3,524,849, 8-18-70, Cl. 260-239.3

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Bateman, John Roy. Wheel aligner for automotive vehicles. 3,488,857, 1-13-70, Cl. 33-203.18

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Bates, Richard L.; and Talley, Philip E., Jr., to General Electric Company. Fluidic digital linear and angular motion sensor. 3,513,710, 5-26-70, Cl. 73-503.

Bates, Thomas E., to Clark-Schwebel Fiber Glass Corporation. Woven fabric having bonded crossovers and method of forming same. 3,515,623, 6-2-70, Cl. 161-86.

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Battaerd, Hendrik A. J., to Imperial Chemical Industries of Australia and New Zealand Limited. Method of producing spherical polymer particles. 3,505,434, 4-7-70, Cl. 264-15.

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Batte, Edward G.; Fogg, Tage J.; and Schooley, Maurice A., to Shell Oil Company. Treatment of young animals with dialkyl beta-chlorovinyl phosphate. 3,507,956, 4-21-70, Cl. 424-78.

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Batzer, Hans; Metzger, Karl; Niklaus, Ulrich; and Heer, Alfred, to Ciba Limited. Impregnating coils, windings or insulating materials with diglycidyl-o-phthalate of high epoxide content and curing. 3,531,321, 9-29-70, Cl. 117-232.

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Baudou, Antoine Joseph Georges. Mold for the manufacture of lined shoes by casting. 3,541,646, 11-24-70, Cl. 18-42.

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Bauer, Clifford D.; Neuser, Gerald L.; and Pinkalla, Hamilton A., to Grace, W. R., & Co. Method for making plastic low fat emulsion spread. 3,519,436, 7-7-70, Cl. 99-123.

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Bauer, Gerhard, to Esterol A.G. Grinding members containing a binder of a copolymer of an unsaturated polyester resin and a polymerizable ethylene derivative. 3,540,869, 11-17-70, Cl. 51-298.

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Bauer, Peter, to Bowles Engineering Corporation. Pure fluid amplifier having a stable undeflected power stream. 3,500,852, 3-17-70, Cl. 137-81.5

Bauer, Peter, to Sperry Rand Corporation. Proportional fluid vortex amplifier. 3,511,255, 5-12-70, Cl. 137-81.5

Bauer, Peter, to United States of America, Navy, mesne. Uniaxial accelerometer controlled fluidic amplifier. 3,543,782, 12-1-70, Cl. 137-81.5

Bauer, Peter; and Sowers, Edwin U., III, to Bowles Engineering Corporation. Pure fluid automatic cargo control system. 3,503,411, 3-31-70, Cl. 137-101.25

Bauer, Raymond A.; and Holmes, John G., to Allis-Chalmers Manufacturing Company. Cast insulating bushing with axially disposed electrical cable. 3,523,157, 8-4-70, Cl. 174-142.

Bauer, Richard A.; and Storm, Elwood H., to International Business Machines Corporation. Magnetic transfer system with pneumatic means for maintaining tape contact. 3,544,732, 12-1-70, Cl. 179-100.2

Bauer, Richard J., to General Motors Corporation. Method of assembling a vacuum modulator. 3,545,070, 12-8-70, Cl. 29-454.

Bauer, Robert E. Method for arranging and placing groups of articles in racks. 3,550,798, 12-29-70, Cl. 214-152.

Bauer, Ronald L.; Buck, Walter C.; and Munz, Charles W., to United States Steel Corporation. System for controlling the air supply to coating- screeding air knives. 3,494,324, 2-10-70, Cl. 118-4.

Bauer, Ronald S.: *See—*
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Bauer, Russell E., to KDI-Bauer Corporation, mesne. Antibacklash gearing. 3,535,949, 10-27-70, Cl. 74-440.

Bauer, Stefan George; Hooper, Bernard; and Trigg, Robert Victor, to Norton Villiers Limited. Motorcycle frame. 3,508,765, 4-28-70, Cl. 280-281.

Bauer, Theodor: *See—*
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Bauer, Victor John; Fanshawe, William Joseph; and Safir, Sidney Robert, to American Cyanamid Company. Certain 4-(1,2,4-oxadiazole-3 or 5-yl) pyridinium salts and derivatives thereof. 3,551,437, 12-29-70, Cl. 260-296.

Bauer, Victor John; and Safir, Sidney Robert, to American Cyanamid Company. Certain 4-(isoxazol-3 or 5-yl)-pyridinium salts. 3,511,848, 5-12-70, Cl. 260-296.

Bauer, Victor John; Wiegand, Gretchen Ellen; and Safir, Sidney Robert, to American Cyanamid Company. Methods and compositions for lowering blood glucose levels using substituted pyridinium salts. 3,549,763, 12-22-70, Cl. 424-263.

Bauer, Victor John; Wiegand, Gretchen Ellen; and Safir, Sidney Robert, to American Cyanamid Company. Certain 4-(thiazolyl) and 4-(oxazolyl) pyridinium salts. 3,551,436, 12-29-70, Cl. 260-294.8

Bauer, Walter G.: *See—*
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Bauer, Werner Robert, to Robertshaw Controls Company. Electrical switch having interlocking cover and casing members. 3,532,840, 10-6-70, Cl. 200-67.

Bauer, William C.; and Conroy, Alfred R., Jr., to FMC Corporation. Method for refining glass with a metal sulfide frit. 3,511,629, 5-12-70, Cl. 65-134.

Bauer, William H., to Bell Aerospace Corporation. Positive expulsion tank. 3,494,513, 2-10-70, Cl. 222-386.5

Bauer, William H., to Floral Development Corporation. Method of compressing and subsequently reexpanding urea-formaldehyde foam. 3,504,064, 3-31-70, Cl. 264-28.

Bauer, William H., to Filfast Corporation. Method of treating cellular foam resins. 3,535,273, 10-20-70, Cl. 260-2.5

Bauer, William V., to Lummus Company, The. Rotary kiln. 3,490,754, 1-20-70, Cl. 263-34.

Bauer, William V., to Lummus Company, The. Kiln or furnace. 3,511,484, 5-12-70, Cl. 263-21.

Bauer, William V., to Lummus Company, The. Production of phosgene. 3,515,752, 6-2-70, Cl. 260-544.

Bauer, William V., to Lummus Company, The. Process for removing sulfur dioxide from gases. 3,524,720, 8-18-70, Cl. 23-2.

Bauerecker, Gunther: *See—*
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Bauerle, Kurt, to Kuno Moser GmbH. Oscillating armature motor. 3,538,358, 11-3-70, Cl. 310-29.

Bauerlein, Carl C., to Dole Valve Company, The. Belt driven ice maker. 3,529,430, 9-22-70, Cl. 62-137.

Bauermeister, Walter K.: *See—*
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Bauers, Arthur A., to Hoover Ball and Bearing Company. Reachpole trailer chassis with rocking bolster. 3,498,632, 3-3-70, Cl. 280-141.

Bauerschmidt, Walter, to Eberspacher, J. Weather cap construction. 3,523,499, 8-11-70, Cl. 98-59.

Bauger, Louis Jules: *See—*
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Bauger, Louis Jules; Bouiller, Jean Georges; and Garnier, Michel Robert, to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation. Axial flow turbomachines comprising two interleaved rotors rotating in opposite directions. 3,503,696, 3-31-70, Cl. 416-122.

Bauger, Louis Jules; Bouiller, Jean Georges; Garnier, Michel Robert; and Lacroix, Armand Jean-Baptiste, to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation. Gas turbine power plants having axial-flow compressors incorporating contrarotating rotors. 3,524,318, 8-18-70, Cl. 60-226.

Bauger, Louis Jules; Bouiller, Jean Georges; and Lacroix, Armand Jean-Baptiste, to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation. Blading arrangement for turbomachines turbomachines. 3,549,272, 12-22-70, Cl. 416-166.

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Baugh, Charles W., Jr.; Feaster, Gene R.; and Ogland, Jon W., to Westinghouse Electric Corporation. Cathodoluminescent laser pump. 3,504,298, 3-31-70, Cl. 331-94.5

Baugh, Charles W., to Huck Manufacturing Company. Container fastener. 3,515,419, 6-2-70, Cl. 287-189.36

Baugh, Charles W., to Huck Manufacturing Company. Hydraulic drive pin rivet. 3,520,225, 7-14-70, Cl. 85-65.

Baugh, Robert A.; and Ostrowski, John S., to PPG Industries, Inc. Interpolymers containing organopolysiloxanes and coating compositions made therefrom. 3,488,304, 1-6-70, Cl. 260-22.

Baugh, Robert T., to Allis-Chalmers Manufacturing Company. Draft hook latch. 3,539,203, 11-10-70, Cl. 280-504.

Baugher, Dale M., to RCA Corporation. Transistor high current switching and inverter circuits. 3,546,627, 12-8-70, Cl. 331-113.

Baughman, Davis Lee; and Carpenter, James Hugh, Jr., to Carborundum Company, The. Parts treating apparatus. 3,538,645, 11-10-70, Cl. 51-15.

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Baughman, Richard J.; and Corll, James A., to United States of America, Atomic Energy Commission. Vapor phase reactor for producing multicomponent compounds. 3,494,743, 2-10-70, Cl. 23-284.

Bauknight, Paul D.; and Lahrheim, Robert, to Thomas & Betts Co., The. Tool adjustment device. 3,514,990, 6-2-70, Cl. 72-410.

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Baum Elektrophysik GmbH: *See—*
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Baum, Gilbert. Method and apparatus for the display and recordation of signals. 3,543,229, 11-24-70, Cl. 340-3.

Baum, Henry H., to National Cash Register Company, The. Adhesive ink. 3,519,463, 7-7-70, Cl. 117-36.1

Baum, Henry H., to National Cash Register Company, The. Thermoresponsive record sheet. 3,539,375, 11-10-70, Cl. 117-36.2

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Baum, John W.; and Littlefield, Peter S., to United States of America, Atomic Energy Commission. Pressurized gas monitor for low level radioactive gases. 3,531,639, 9-29-70, Cl. 250-43.5

Baum, Lloyd, to Loma Linda University. Metallic conglomerate adaptable for dental filling. 3,495,972, 2-17-70, Cl. 75-0.5

Baum, Melvin E., to Koppers Company, Inc. Thickenable unsaturated polyester resin system. 3,519,698, 7-7-70, Cl. 260-850.

Baum, Melvin E., to Koppers Company, Inc. Self-extinguishing polyester resin having good chemical resistance. 3,519,700, 7-7-70, Cl. 260-869.

Baum, Melvin E., to Koppers Company, Inc. Heptatriene containing polyester resin composition having long B-stage storage life. 3,530,203, 9-22-70, Cl. 260-861.

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Baum, Nicholas R.; Kitsopoulos, Sotirios C.; and Lynn, Dale E., to Bell Telephone Laboratories, Incorporated. Unitary circuit for clamping, amplification and automatic gain control. 3,537,025, 10-27-70, Cl. 330-103.

Baum, Roger D.; and Favin, David L., to Bell Telephone Laboratories, Incorporated. Multiple phase alternating current meter. 3,519,932, 7-7-70, Cl. 324-102.

Baum, Roger D.; and Favin, David L., to Bell Telephone Laboratories, Incorporated. Pulse generator. 3,551,704, 12-29-70, Cl. 307-265.

Baum, Walter, to Baum Elektrophysik GmbH. Radiation protected cables. 3,518,577, 6-30-70, Cl. 333-12.

Baum, Willi; and Sommer, Jurgen, to Henkel & Cie G.m.b.H. Process for the preparation of dry culinary mixes. 3,551,166, 12-29-70, Cl. 99-94.

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Bauman, Alvin H.; Kolias, John T.; Russin, Andrew; Smith, Paul L.; and Springfield, William K., to International Business Machines Corporation. Electrical connecting device. 3,533,044, 10-6-70, Cl. 339-14.

Bauman, Frank A., to Lubrizol Corporation, The. Regeneration of chromate conversion coating solutions. 3,514,343, 5-26-70, Cl. 148-6.2

Bauman, Jack L.; Boetto, Charles; Andersaon, Ingemar R.; and Gesior, Augustyn M., to International Harvester Company. Duplex hitch. 3,492,021, 1-27-70, Cl. 280-411.

Bauman, Robert Andrew, to Colgate-Palmolive Company. Surfactant anti-microbial compounds. 3,493,615, 2-3-70, Cl. 260-567.6

Baumanis, Bruno, to Molex Products Company. Electric switch using lead terminals as fixed contacts. 3,488,460, 1-6-70, Cl. 200-16.

Baumanis, Bruno, to Molex Products Company. Pushbutton switch mechanism including a rocker contact and an actuator. 3,521,013, 7-21-70, Cl. 200-67.

Baumanis, Bruno, to Molex Products Company. Side mount connector. 3,535,675, 10-20-70, Cl. 339-125.

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Baumann, Arthur N.; and Bird, Richard E., to International Minerals & Chemical Corporation. Purification of fluorine-containing industrial waste waters. 3,551,332, 12-29-70, Cl. 210-53.

Baumann, Carl G., to Procter & Gamble Company, The. Method for improving end seams in containers with a fin-type back seam by double heat sealing. 3,506,516, 4-14-70, Cl. 156-226.

Baumann, Donald A.; Truitt, Thomas D.; Bruno, James, Jr.; and Landauer, Jay Paul, to Electronic Associates Inc. Digital operations system for an analog computer. 3,532,861, 10-6-70, Cl. 235-150.5

Baumann, Eduard, to Zellweger Ltd. Method and apparatus for selectively evaluating pulse images in superheterodyne ripple-control receivers. 3,531,774, 9-29-70, Cl. 340-164.

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Baumann, Hans G., to Demag Aktiengesellschaft. Method and apparatus for straightening arc-type continuous casting. 3,543,830, 12-1-70, Cl. 164-82.

Baumann, Hans G.; and Komma, Gerhard K., to Demag Aktiengesellschaft. Form changing device for continuous casting. 3,543,555, 12-1-70, Cl. 72-224.

Baumann, Hans-Peter; and Keller, Robert-Christian, to Sandoz Ltd. Process of dyeing textile fibres using a phenyl sulphone dyeing assistant. 3,536,438, 10-27-70, Cl. 8-21.

Baumann, Hans-Peter; and Keller, Robert-Christian, to Sandoz Ltd. Diphenyloxide sulfone sulfonic acids. 3,538,151, 11-3-70, Cl. 260-512.

Baumann, Hans; and Enz, Walter, to Aktiengesellschaft Brown, Boveri & Cie. Arrangement for absorbing axial thrust of a turbomachine shaft. 3,498,686, 3-3-70, Cl. 308-135.

Baumann, Hans; and Hansen, Guenter, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Basic dyes of the perinaphtholactam series. 3,551,439, 12-29-70, Cl. 260-299.

Baumann, Horst; and Stein, Werner, to Henkel & Cie GmbH. Light-colored sulfonation products. 3,492,239, 1-27-70, Cl. 252-161.

Baumann, John A.; and Ingraham, Glen E., to Union Carbide Corporation. Glass reinforced thermoplastic sheet. 3,531,369, 9-29-70, Cl. 161-187.

Baumann, Kurt, to Krups, Robert. Control switch for an electric dry razor. 3,489,874, 1-13-70, Cl. 200-154.

Baumann, Kurt, to Escher Wyss Limited. Labyrinth seal for a hydraulic rotary machine. 3,516,757, 6-23-70, Cl. 415-112.

Baumann, Ludwig; and Schutze, Benno, said Schutze assor to said Baumann. Ventilating fan unit. 3,499,378, 3-10-70, Cl. 98-33.

Baumann, Manfred; and Stahli, Alois, to Baumann AG. Security closure mechanism with knife means for releasing closure. 3,529,750, 9-22-70, Cl. 222-80.

Baumann, Peter; and Zimmermann, Markus, to Geigy Chemical Corporation. Penicillin derivatives. 3,499,889, 3-10-70, Cl. 260-239.1

Baumann, Peter; and Zimmermann, Markus, to Geigy Chemical Corporation. 6-Amino-penicillanic acid derivatives for control of gram positive bacterial infections. 3,542,925, 11-24-70, Cl. 424-263.

Baumann, Peter; and Zimmermann, Markus, to Geigy Chemical Corporation. Antibacterial composition containing 2,6- diaminophenyl penicillin or salt thereof. 3,551,569, 12-29-70, Cl. 424-271.

Baumbach, Harlan L. Splice for the adjacent ends of two photographic film strips. 3,519,524, 7-7-70, Cl. 161-38.

Baumberger, Werner. Paving stone. 3,494,266, 2-10-70, Cl. 94-13.

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Baumeister, Alois; and Herbsthofer, Franz Joseph, to Massey-Ferguson G.m.b.H. Combine harvester. 3,490,460, 1-20-70, Cl. 130-27.

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Baumgartner, Franz: *See—*
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Baumgartner, Richard J.; and Bond, Milton F., to International Business Machines Corporation. Character separation apparatus for character recognition machines. 3,526,876, 9-1-70, Cl. 340-146.3

Baumgartner, Robert G., to Bell Telephone Laboratories, Incorporated. Pedestal closures for buried telephone plant. 3,538,236, 11-3-70, Cl. 174-38.

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Baumgartner, Willy, to Gesellschaft zur Forderung der Forschung an der Eidg. Techn. Hochschule. Image intensifier for optically produced images. 3,527,522, 9-8-70, Cl. 350-161.

Baummer, George Paul. Apparatus and method for separating solid particles. 3,537,581, 11-3-70, Cl. 209-437.

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Baumrucker, George O. Odds device for horse race game. 3,520,538, 7-14-70, Cl. 273-143.

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Baur, Fredric J.; and Hawley, Harold Kenneth, to Procter & Gamble Company, The. Packaging of chip-type snack food products. 3,498,798, 3-3-70, Cl. 99-171.

Baur, Gerd R.; Stroh, Ernest F.; and Finefrock, Quay G., to Monsanto Company. Method of producing soil resistant fibers. 3,541,075, 11-17-70, Cl. 264-136.

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Bautz, Frederick H.; and Otsuka, Tsuruo, to Verson Allsteel Press Company. Gripper finger mechanism for press transfer assembly. 3,512,824, 5-19-70, Cl. 294-115.

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Baxendale, John W., to Vendo Company, The. Serpentine column dispensing machine having associated pre-cool rack. 3,533,536, 10-13-70, Cl. 221-281.

Baxendale, John W.; and Craven, Herman R., to Vendo Company, The. Double-depth serpentine can vender. 3,498,497, 3-3-70, Cl. 221-116.

Baxendale, Norman Gilby; and Robinson, Peter Michael, to Dunlop Company Limited, The. Mechanical belting. 3,509,006, 4-28-70, Cl. 161-91.

Baxley, Ralph D. Grove heater. 3,515,120, 6-2-70, Cl. 126-59.5

Baxt, Lawrence M.; McDowell, John R.; and Stewart, Lawrence L., to Morris, Philip, Incorporated. Metallized polarets and methods for their production. 3,496,013, 2-17-70, Cl. 117-227.

Baxter, Benjamin D. Slide fastener lubricator. 3,491,854, 1-27-70, Cl. 184-1.

Baxter, Bernie M.; and Cheney, Donald L. Coupling. 3,525,540, 8-25-70, Cl. 285-64.

Baxter, Carlton J.: *See—*
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Baxter, Donald J.; Dangler, Robert L.; and Hanrahan, William E., to Marquette Metal Products Company. Governing system for engines and automotive vehicles. 3,502,167, 3-24-70, Cl. 180-107.

Baxter, Donald J.; Dangler, Robert L.; and Hanrahan, William E., to Marquette Metal Products Company, The. Temperature compensated electromagnetic coupling. 3,541,366, 11-17-70, Cl. 310-97.

Baxter, Duane W.: *See—*
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Bartz, Maurice R.; Baxter, Duane W.; Garry, Gerald A.; Johnston, David L.; and Styczinski, David A.,3,534,334.

Baxter, Duane W.; Heidrich, Paul F.; Massing, Jo M., deceased (by Massing, John W., administrator); and Smoyer, Claude B., to International Business Machines Corporation. Electro optical positioner. 3,515,877, 6-2-70, Cl. 250-202.

Baxter, Edmund F., Jr., to Esso Research and Engineering Company. Graft copolymer preparation via peroxidation by high energy irradiation. 3,524,904, 8-18-70, Cl. 260-877.

Baxter, Ellsworth H., to Marx, Louis, & Co., Inc. Musical toy. 3,533,323, 10-13-70, Cl. 84-102.

Baxter, Gene F.: *See—*
Freeman, Harlan G.; Baxter, Gene F.; and Allan, George Graham,3,518,159.
Kreibich, Roland E.; Freeman, Harlan G.; Baxter, Gene F.; and Kumli, Karl F.,3,492,263.

Baxter, J. H., & Co.: *See—*
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Baxter, James C.: *See—*
Ullman, William L.; Baxter, James C.; Pearson, Arthur J.; Davis, Robert E.; and Hullhorst, William B.,3,497,413.

Baxter, James Edward Ross. Machine for the manufacturing of cheese. 3,523,366, 8-11-70, Cl. 31-46.

Baxter, Joseph, Jr., to Black Clawson Company, The. Tree harvester. 3,545,509, 12-8-70, Cl. 144-309.

Baxter, Joseph, Jr., to Black Clawson Company, The. Method for the treatment of garbage and other wastes. 3,549,092, 12-22-70, Cl. 241-15.

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Berger, Arthur; Borgaes, Edeltraut E.; and Longstreet, John C., 3,506,680.
Farb, Richard B., 3,536,073.
Goldhaber, Richard, 3,527,700.
Hall, John B.; and Farb, Richard B., 3,547,119.
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Le May, William E., 3,494,989.
Louderback, Allan L.; Natland, Martin C.; and Shanbrom, Edward, 3,497,437.
Regan, Bernard M., 3,499,048.
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Tompkins, Douglas L., 3,502,440.
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Baxter, Lawson J., to Armco Steel Corporation. Method for producing a uniform metallic coating on wire. 3,523,815, 8-11-70, Cl. 117-102.

Baxter, Milton C., to Cities Service Oil Company. Flame cultivation apparatus. 3,543,436, 12-1-70, Cl. 47-1.44

Baxter, Richard Allen: *See—*
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Craig, James R.; and Bayar, Mete,3,488,499.

Bayati, Abutorab: *See—*
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Bayati, Jamal E., to North American Rockwell Corporation. Integrated aircraft propulsion control system. 3,517,509, 6-30-70, Cl. 60-226.

Baybutt, William Edward, to Pilkington Brothers Limited. Electrode assemblies. 3,517,107, 6-23-70, Cl. 13-18.

Bayer, Anna Y., to Strouse Adler Company, The. Girdle. 3,533,412, 10-13-70, Cl. 128-547.

Bayer, Friedrich, to Friedrich Grohe Armaturenfabrik. Valve. 3,538,952, 11-10-70, Cl. 137-625.17

Bayer, Herbert; and Coenning, Frank, to Wandel & Goltermann. System for generating a spectrum of beat frequencies to measure harmonics of a test frequency. 3,488,582, 1-6-70, Cl. 324-57.

Bayer, Horst O., to Rohm & Haas Company. Ethylenic sulfilimines. 3,542,865, 11-24-70, Cl. 260-556.

Bayer, John W., to Owens-Illinois, Inc. Novel polymers prepared from aliphatic diketones and aliphatic diamines. 3,506,613, 4-14-70, Cl. 260-65.

Bayer, John W.; and Grinonneau, William Charles, to Owens-Illinois, Inc. Compounds containing vanadium, oxygen and phosphorous, methods for making same, and catalysts using same for polymerization of unsaturated compounds. 3,488,334, 1-6-70, Cl. 260-88.2

Bayer, John W.; and Santiago, Edgardo, to Owens-Illinois, Inc. Electrolytic polymerization. 3,489,663, 1-13-70, Cl. 204-59.

Bayer, Leonard A.: *See—*
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Bayer, Otto: *See—*
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Bayer, Samuel: *See—*
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Bayer, Wolfgang; and Rangger, Herbert, to Hilti Aktiengesellschaft. Piston return apparatus for an anchor means inserting device. 3,494,532, 2-10-70, Cl. 227-10.

Bayer, Wolfgang; Rangger, Herbert; and Kieber, Hartwig, to Hilti Aktiengesellschaft. Explosive actuated fastener setting means for use with a cartridge magazine. 3,499,590, 3-10-70, Cl. 227-10.

Bayerische Motoren Werke A.G.: *See—*
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Bayerische Motoren Werke Aktiengesellschaft: *See—*
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Bayerlein, Friedrich: *See—*
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Bayerlein, Friedrich; and Kolbeck, Winfried, to Diamalt Aktiengesellschaft. Process for producing bread and baking products. 3,520,703, 7-14-70, Cl. 99-91.

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Bayha, Jack E., to ARDAC/USA Incorporated. Vending payout apparatus. 3,508,635, 4-28-70, Cl. 194-2.

Bayha, Jack E. Facsimile apparatus with the receiving drum driven at a higher speed than the transmitting drum. 3,532,818, 10-6-70, Cl. 178-69.5

Bayha, Jack E.; and Schrieber, Kenneth T., to Transmarine Corporation. Integrator circuit for security validation. 3,492,490, 1-27-70, Cl. 250-219.

Bayless, David M., to Murphy, G. W., Industries, Inc. Shaft centering assembly. 3,519,088, 7-7-70, Cl. 173-149.

Bayless, Frank K.; Descarries, Raymond; Ohlson, B Erik; and Anderson, James, to Electrolux Corporation. Pile lifter for a floor care machine. 3,516,107, 6-23-70, Cl. 15-246.

Bayless, Jack H.; and Penberthy, Walter L., Jr, to Esso Production Research Company. Technique for insulating a wellbore with silicate foam. 3,525,399, 8-25-70, Cl. 166-303.

Bayless, James D. Monaural-binaural phonograph with independent spaced pickup styli. 3,497,636, 2-24-70, Cl. 179-100.4

Baylis, Anthony: *See—*
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Baylis, Frank E. Rake. 3,487,617, 1-6-70, Cl. 56-400.01

Baylis, Howard Raymond; and Tiefenthal, Josef Maria Herbert, to Monotype Corporation Limited, The. Photocomposer motor control apparatus. 3,511,141, 5-12-70, Cl. 95-4.5

Baylis, Howard Raymond; and Tiefenthal, Josef Maria Herbert, to Monotype Corporation Limited, The. Stepped driven differentially geared motor system. 3,538,413, 11-3-70, Cl. 318-18.

Bayly, John G.; and Rhodes, Cecil, to Atomic Energy of Canada Limited. Sample input system. 3,524,351, 8-18-70, Cl. 73-421.

Baymiller, John W. Flexible shaft putter. 3,519,270, 7-7-70, Cl. 273-80.

Baynard, Joseph S., Jr., to Western Electric Company, Incorporated. Resistance controlled pulse generator. 3,515,815, 6-2-70, Cl. 179-90.

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Bayne, Peter D., to Schlitz, Jos., Brewing Co. Control system for cold sterilization process. 3,506,460, 4-14-70, Cl. 99-211.

Bayne, Peter D., to Schlitz, Jos., Brewing Company. Fluorocarbon gas as a foam improving additive for carbonated beverages. 3,515,560, 6-2-70, Cl. 99-49.

Bayne, Peter D.; and Pahlow, John L., to Schlitz, Jos., Brewing Co. Apparatus for reconstituting concentrated wart. 3,505,946, 4-14-70, Cl. 99-278.

Bayne, Robert T.: *See—*
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Baynes, William R.: *See—*
Yamasaki, Toshio; Baynes, William R.; Schlau, Floyd E.; Merino, Dennis H.; and Shirwo, Darold M.,3,551,022.

Baynham, Alexander Chrisopher; and Rees, Huw David, to United Kingdom of Great Britain and Northern Ireland, Minister of Technology in Her Britannic Majesty's Government of the. Travelling spot display device. 3,499,705, 3-10-70, Cl. 350-161.

Bays, James: *See—*
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Bays, Marvin G., to Continental Oil Company. Marine acoustic energy source. 3,540,543, 11-17-70, Cl. 181-0.5

Bayshore Concrete Products Corporation: *See—*
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Bazell, Seymour: *See—*
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Bazen, Raymond A.: *See—*
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Bazhenov, Vadim Valentinovich; Larin, Gennady Nikolaevich; and Khrobastov, Mikhail Fedorovich. Method of mechanized electric arc welding and building up of metals and alloys and a welding head for accomplishing same. 3,538,300, 11-3-70, Cl. 219-130.

Bazilevsky, Viktor Mamertovich; and Amarian, Andronik Pogosovich, to Moskovsky Zavod vtorichnykh dragotsennykh metallov. Method of separating a layer of gold from a base of nonferrous or rare metals or their alloys. 3,495,976, 2-17-70, Cl. 75-101.

Bazin, Lucas J.: *See—*
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Bazin, Lucas J., to RCA Corporation. Television camera power supply. 3,510,578, 5-5-70, Cl. 178-7.1

Bazinet, Wilfred P., Jr.; and Young, Charles Gilbert, to American Optical Company, mesne. Laser assemblies and the like. 3,500,238, 3-10-70, Cl. 331-94.5

Bazinet, Wilfred P., Jr.: *See—*
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Bea, Robert G., to Shell Oil Company. Folding support structure for offshore drilling platforms. 3,517,516, 6-30-70, Cl. 61-46.5

Beach, David E., to Eastman Kodak Company. Socket for multilamp flash unit. 3,544,248, 12-1-70, Cl. 431-93.

Beach, David E., to Eastman Kodak Company. Firing mechanism for percussion-ignitable flash lamps. 3,544,250, 12-1-70, Cl. 431-93.

Beach, Gerald H.: *See—*
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Beach, John R., to Signode Corporation. Sealing mechanism for strapping machines. 3,550,647, 12-29-70, Cl. 140-93.4

Beach, Leland K.: *See—*
Passannante, Anthony J.; and Beach, Leland K.,3,551,496.

Beach, Margaret S.; and Roudabush, Robert L., to Eastman Kodak Company. Inhibiting biological growths in acidic photographic processing solutions with nitro alcohols. 3,542,553, 11-24-70, Cl. 96-60.

Beach, Rex E.: *See—*
Palmer, Gerald W.; and Beach, Rex E.,3,505,831.

Beach, Richmond C.; Kane, John R.; and Magin, Irving J., to Itek Corporation. Photographic process comprising dye bleaching step. 3,547,636, 12-15-70, Cl. 96-48.

Beach, Robert W.: *See—*
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Beach, Wayne C.: *See—*
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Beach, William R.: *See—*
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Beacham, Francis W.; Bushnell, Thomas W.; and Carson, Joseph R., Jr., to Clement , J. W., Company. Collating system with malfunction control. 3,519,264, 7-7-70, Cl. 270-58.

Beacham, Harry H., to FMC Corporation. Diallyl phthalate decorative laminates. 3,509,019, 4-28-70, Cl. 161-251.

Beacham, Harry H.: *See—*
Wright, Carl L.; and Beacham, Harry H.,3,527,665.

Beachem, Michael Thomas: *See—*
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Beachem, Michael Thomas; and Megson, Frederic Houghton, to American Cyanamid Company. Etherified methylolated melamines and process for finishing cellulosic textile material therewith. 3,519,625, 7-7-70, Cl. 260-249.6

Beachem, Michael Thomas; and Megson, Frederic Houghton, to American Cyanamid Company. Amino-methylolated melamines and processes for finishing cellulose textile. 3,519,626, 7-7-70, Cl. 260-249.6

Beachler, Edward D.; and Amend, John W., to Beloit Corporation. Vacuum transfer device in papermaking machine. 3,526,574, 9-1-70, Cl. 162-205.

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Hart, Robert H.; Beachler, Edward D.; Justus, Edgar J.; and Veneman, Dirk J.,3,490,689.
McKie, Thomas G.; and Beachler, Edward D.,3,492,200.

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Beachley, Robert W. Means for ground fault detection, metering and control of alternating current electrical systems. 3,514,694, 5-26-70, Cl. 324-51.

Beadle, Reginald, to Vickers Limited. Electron-beam welding. 3,491,226, 1-20-70, Cl. 219-121.

Beahm, Robert Barclay; Brosius, William B., Jr.; Gibson, Bruce D.; and Leavitt, George Robert, to Sybron Corporation. Diversion valve and system. 3,532,120, 10-6-70, Cl. 137-609.

Beaird-Poulan Inc.: *See—*
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Shaw, Gerald J.; and Hill, William H., 3,537,490.

Beal, Charles B.; and Brown, James E., Jr. Method and device for orally admitting an elongated flexible element in the alimentary canal. 3,528,429, 9-15-70, Cl. 128-2.

Beal, Clifford W., to California and Hawaiian Sugar Company. Screening device. 3,511,374, 5-12-70, Cl. 209-258.

Beal, Edward W.; and Daley, William C. High intensity runway inset light with shallow optical system. 3,535,504, 10-20-70, Cl. 240-1.2

Beal, Philip F., III: *See—*
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Beal, Philip F., III; Fonken, Gunther S.; Pike, John E.; and Schneider, William P., to Upjohn Company, The. Process for preparing prostaglandins and analogs thereof. 3,514,383, 5-26-70, Cl. 204-158.

Beal, Philip F., III; and Jackson, Robert W., to Upjohn Company, The. 14α,15α-Ketonides of alkyl 3-oxygenated-14α, 15α-dihydroxy-4,17(20)-cis-pregnadien-21-oates, derivatives thereof, and intermediates and processes therefor. 3,502,659, 3-24-70, Cl. 260-239.55

Beal, Philip F., III; Lincoln, Frank H., Jr.; and Babcock, John C., to Upjohn Company, The. Esters and process. 3,505,387, 4-7-70, Cl. 260-468.

Beal, Philip F., III; Lincoln, Frank H., Jr.; and Pike, John E., to Upjohn Company, The. Process for producing cyclopenta[b]pyrans. 3,524,867, 8-18-70, Cl. 260-345.2

Beal, Robert E., to United States of America, Agriculture. Ozonization of vegetable oils in an improved aqueous medium. 3,504,038, 3-31-70, Cl. 260-601.

Beal, Ronald C., to Caterpillar Tractor Company. Reciprocator for grinding wheel spindles. 3,538,646, 11-10-70, Cl. 51-34.

Beale, Julian Robert Anthony: *See—*
Berz, Feodora; and Beale, Julian Robert Anthony,3,490,847.

Beale, Julian Robert Anthony, to U.S. Philips Corporation, mesne. Semiconductor devices and method of making. 3,512,055, 5-12-70, Cl. 317-235.

Beale, Louis C., Jr.: *See—*
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Beale, Stanley E.: *See—*
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Beall, George H., to Corning Glass Works. High strength alpha-and beta-quartz glass-ceramic products and method. 3,524,748, 8-18-70, Cl. 106-39.

Beall, Glenn Lee; and Ellmann, Norbert William, to Abbott Laboratories. Foldable bellows valve. 3,547,401, 12-15-70, Cl. 251-144.

Beall, Glenn L., to Faucet-Queens Inc., The. Hose attachment. 3,515,413, 6-2-70, Cl. 285-8.

Beall, Horace A., Jr., to North American Rockwell Corporation. Digital correlation pattern tracker with single axis scanning. 3,535,527, 10-20-70, Cl. 250-209.

Beall Pipe and Tank Corporation: *See—*
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Beall, William H., to General Electric Company. Drift compensation for integrating amplifiers. 3,541,320, 11-17-70, Cl. 235-183.

Bealor, Jesse L., Jr.: *See—*
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Beals, Norman, to Hidden Charm, Inc. Breast pad. 3,494,365, 2-10-70, Cl. 128-479.

Beals, Terry L.; and Griffin, Theodore F., to Goodyear Tire & Rubber Company, The. Tread marking device. 3,534,681, 10-20-70, Cl. 101-37.

Beam, Jon W., to Reynolds, R. J., Tobacco Company. Mechanical tobacco smoke filter. 3,533,414, 10-13-70, Cl. 131-10.3

Beam, Jon W., to Reynolds, R. J., Tobacco Company. Tobacco smoke filtering means and adaptations. 3,547,132, 12-15-70, Cl. 131-10.5

Beam, Roger N.: *See—*
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Beam, Walter R., to International Business Machines Corporation. Superconductive tunneling gate. 3,521,133, 7-21-70, Cl. 317-234.

Beaman, Alden Gamaliel; Duschinsky, Robert; and Tautz, William Paul, to Hoffmann-La Roche Inc. 2-Nitro-imidazolyl-1-acetamides. 3,505,349, 4-7-70, Cl. 260-309.

Beaman, Alden Gamaliel; Duschinsky, Robert; and Tautz, William Paul, to Hoffmann-La Roche Inc. 1-Substituted-2-nitroimidazole derivatives. 3,549,653, 12-22-70, Cl. 260-309.

Beaman, Don L., to Red Lake Laboratories. Film speed control apparatus. 3,523,722, 8-11-70, Cl. 352-84.

Beaman, Kenneth G.: *See—*
Adams, Lester R.; Beaman, Kenneth G.; Handloff, Louis E.; Harley, Theodore P.; and Kevill, John F.,3,544,712.

Beamco, Inc.: *See—*
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Breslin, John J., 3,525,876.
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Beamon, Howard L., to Hanes Corporation. Fabric guiding means for sewing machines. 3,527,181, 9-8-70, Cl. 112-27.

Bean, Charles P., to General Electric Company. Optical apparatus and method for determination of pore dimensions in sheet material. 3,517,203, 6-23-70, Cl. 250-219.

Bean, Claude T., Jr.: *See—*
Dorfman, Edwin; Emerson, William E.; Bean, Claude T., Jr.; and Carr, Russell L. K.,3,489,727.

Bean, Claude Thomas, Jr.: *See—*
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Bean, Frederic Roland, to Eastman Kodak Company. Process for the preparation of dialkali dihyroxybenzene disulfonates. 3,547,988, 12-15-70, Cl. 260-512.

Bean, Harley F., to Teledyne Industries. Waterproof connector assembly. 3,512,120, 5-12-70, Cl. 339-99.

Bean, Johnny, Machinery Co.: *See—*
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Bean, Kenneth E.; and Gleim, Paul S., to Texas Instruments, Incorporated. Method of preparing silicon nitride films. 3,549,411, 12-22-70, Cl. 117-69.

Bean, Kenneth E.; and Martin, Billy M., to Texas Instruments, Incorporated. Bi-layer insulation structure including polycrystalline semiconductor material for integrated circuit isolation. 3,519,901, 7-7-70, Cl. 317-235.

Bean, Kenneth E.; and Runyan, Walter R., to Texas Instruments, Incorporated. Semiconductor integrated circuit structure. 3,534,236, 10-13-70, Cl. 317-235.

Bean, Lloyd F., to Xerox Corporation. Printing by particulate images. 3,490,368, 1-20-70, Cl. 101-170.

Bean, Lloyd F., to Xerox Corporation. Method of preparing a negative xerographic reproduction from a positive line copy image. 3,519,818, 7-7-70, Cl. 250-49.5

Bean, Lloyd F., to Xerox Corporation. Silk screen master. 3,527,163, 9-8-70, Cl. 101-128.4

Bean, Lloyd F.: *See—*
Gundlach, Robert W.; and Bean, Lloyd F.,3,526,879.

Bean, Robert A.: *See—*
Brooke, Arthur W., Jr.; and Bean, Robert A.,3,540,854.
Freeman, Peter A.; and Bean, Robert A.,3,545,468.

Bean, Stephen F.; and Cullen, Donald L., to Ohio Electronics Corporation. Radio-controlled remote engine starting apparatus. 3,530,846, 9-29-70, Cl. 123-179.

Beane, David J.: *See—*
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Bear, David L.; and Munday, James F., to Mattel, Inc. Figure toy having apparatus for moving eyes in simulated reading motion. 3,495,351, 2-17-70, Cl. 46-118.

Bear, Fred B., to Victor Comptometer Corporation. Takedown bow. 3,502,063, 3-24-70, Cl. 124-23.

Beard, Albert L.: *See—*
Bahrs, David L.; and Beard, Albert L.,3,546,680.

Beard, Archibald K.: *See—*
Tae, Jaakko I.; and Beard, Archibald K.,3,528,924.

Beard, Chester S.; and Hedger, Frank R., to Bell Aerospace Corporation. Valve operator system. 3,505,814, 4-14-70, Cl. 60-52.

Beard, Jack Herbert, to Davy and United Engineering Company Limited. Roll Changing rig. 3,491,570, 1-27-70, Cl. 72-239.

Beard, Kenneth R.: *See—*
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Beard, Ralph Lowery; and Hester, James Fred, to Hanes Corporation. Single-piece brief. 3,491,375, 1-27-70, Cl. 2-224.

Beard, Walter C. Valve mechanism. 3,506,165, 4-14-70, Cl. 222-402.22

Beard, Walter C. Dispensing device. 3,545,682, 12-8-70, Cl. 239-469.

Bearden, Roby, Jr., to Esso Research and Engineering Company. Purification of neo-carboxylic acids by treating with sulfuric acid and a phase-separating agent. 3,489,779, 1-13-70, Cl. 260-419.

Beardmore, James W.; and Coenen, Cyril B., to Shell Oil Company. Wax coating composition. 3,530,085, 9-22-70, Cl. 260-28.5

Beardmore, Robert L. Wrist extensor operated hand splint. 3,526,006, 9-1-70, Cl. 3-12.

Beardsley, Glenn L. Cement mixing apparatus. 3,502,306, 3-24-70, Cl. 259-161.

Beare, Robert B.; and Conrath, Richard L., to Fedders Corporation. Single bearing pump. 3,536,412, 10-27-70, Cl. 415-169.

Bearer, Gerald L., to Voss Engineering Company. Apparatus for cutting a continuously moving strip of material. 3,487,738, 1-6-70, Cl. 83-316.

Beas, Urban J., to Mac Gregor-Comarian, Incorporated. Cover system for vessels. 3,513,799, 5-26-70, Cl. 114-202.

Beasley, Albert W. Refuse container support. 3,524,615, 8-18-70, Cl. 248-145.

Beasley, Charles A.: *See—*
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Beasley, George A., to Univis, Inc. Method and apparatus for blocking multifocal lens blanks. 3,501,842, 3-24-70, Cl. 33-180.

Beasley, Silas V., to McGraw-Edison Company. Electric cooking unit. 3,523,181, 8-4-70, Cl. 219-404.

Beason, Elmer C.; and Mader, George E., Jr., to Phillips Petroleum Company. Packaging means with photocell interruption. 3,502,889, 3-24-70, Cl. 250-222.

Beatenbough, Paul K.; Gardner, John A., Jr.; and Hutchins, Ward H., to General Motors Corporation. Control valve. 3,503,377, 3-31-70, Cl. 123-117.

Beaton, Claude C.: *See—*
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Holmberg, Hartvig E.; and Holmberg, Harry E., 3,501,161.
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Luksas, Anthony J., 3,535,121.
Noznick, Peter P.; and Luksas, Anthony J., 3,489,570.
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Beattie, David Dowley, to Sheeba, Industries Pty. Ltd. Hydraulic motor for a reciprocating gripper. 3,494,529, 2-10-70, Cl. 226-141.

Beattie, Douglas Harold. Ear tag. 3,505,752, 4-14-70, Cl. 40-302.

Beattie, Frank A. Lifting handles for use by nurserymen. 3,507,533, 4-21-70, Cl. 294-16.

Beattie, James Hughes; and Stuart, Ronald Sangster, to Imperial Chemical Industries Limited. Siloxane-polyoxyalkylene copolymers. 3,541,127, 11-17-70, Cl. 260-448.8

Beatty, David L. Portable speaker assembly for large areas. 3,526,718, 9-1-70, Cl. 179-1.

Beatty, Harold A.: *See—*
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Perilstein, Warren L.; and Beatty, Harold A.,3,527,704.

Beatty, James L. Tubular kaleidoscope. 3,536,372, 10-27-70, Cl. 350-4.

Beatty, James R.; and Baranwal, Krishna C., to Goodrich, B. F., Company, The. Tack tester. 3,548,652, 12-22-70, Cl. 73-150.

Beaty, Charles A., to RFD, Inc. Radio altimeter. 3,500,398, 3-10-70, Cl. 343-7.3

Beaty, Jeremy G.: *See—*
Lee, Charles Allen; Furbeck, Warren R.; Bartley, Thomas S.; and Beaty, Jeremy G.,3,501,813.

Beau, Raymond; and Fourniguet, Jean, to Produits Chimiques Pechiney-Saint-Gobain. Agglomerated silica bodies and method. 3,538,212, 11-3-70, Cl. 264-117.

Beau, Raymond: *See—*
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Beaubien, William H.: *See—*
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Beauchamp, Earl N. Insect repellant device. 3,523,645, 8-11-70, Cl. 239-154.

Beauchamp, Edwin K.; and Morenz, James E., to United States of America, Atomic Energy Commission. Fiber strengthened thermoelectric material. 3,546,026, 12-8-70, Cl. 136-238.

Beauchamp, Jesse L., to Varian Associates. Method and apparatus for measuring ion interrelationships by double resonance mass spectroscopy. 3,502,867, 3-24-70, Cl. 250-41.9

Beauchef, Gaston Henri, to Societe d'Application des Matieres Plastiques. Ski goggles. 3,517,393, 6-30-70, Cl. 2-14.

Beauchet, Jean; and Garcin, Georges, to Societe Nouvelle de Roulements. Grinding machines with grinding-wheel wear compensating device. 3,513,596, 5-26-70, Cl. 51-5.

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Beaudette, Richard A., to Sylvania Electric Products, Inc. Absolute value amplifier circuit. 3,546,596, 12-8-70, Cl. 328-26.

Beaudoin, Adrien E.; Jannarelli, Albert E.; and Marzochi, Alfred, to Owens-Corning Fiberglas Corporation. Method of coating glass fibers and the like. 3,508,309, 4-28-70, Cl. 28-73.

Beaudoin, Leon. Variable pitch pulley. 3,492,884, 2-3-70, Cl. 74-230.17

Beaudry, Gerald A., to International Paper Company. Plant container. 3,521,741, 7-28-70, Cl. 206-45.14

Beaugrand, Claude H.; and Robin, Bernard P., to CSF-Compagnie Generale de Telegraphie Sans Fil. Quantized phase-shifter using coaxial line shunt- loaded with diode-capacitor groups, each having tuned stubs. 3,504,375, 3-31-70, Cl. 333-31.

Beaulieu, Philip E., to International Business Machines Corporation. Circuit card connector. 3,537,063, 10-27-70, Cl. 339-74.

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Beaupere, Roger. Automatic indexing plate. 3,489,039, 1-13-70, Cl. 74-815.

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Beauvais, Maurice, to Rhone-Poulenc S.A. Mechanical linkage. 3,523,460, 8-11-70, Cl. 74-96.

Beauvais, Rene G.: *See—*
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Beaver, John R., to Beaver, Rudolph, Inc. Surgical instrument for cutting and removing sutures. 3,541,684, 11-24-70, Cl. 30-124.

Beaver Precision Products, Inc.: *See—*
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Beaver, Ruby C.: *See—*
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Beaver, Thomas R.; and Van Benthuysen, John D., to CTS Corporation. Electrical component. 3,518,604, 6-30-70, Cl. 338-164.

Beaver, William D., to Bell Telephone Laboratories, Incorporated. Energy translating device. 3,517,350, 6-23-70, Cl. 333-72.

Beavers, Dorothy J.; and Yutzy, Henry C., to Eastman Kodak Company. Chemical transfer receiving sheets and a method of preparing such sheets. 3,518,160, 6-30-70, Cl. 162-135.

Beavers, John A.: *See—*
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Beavers, Leo E., to Eastman Kodak Company. High temperature processing of exposed photographic elements. 3,536,486, 10-27-70, Cl. 96-22.

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Beavon, David K., to Parsons, Ralph M., Company, The. High pressure sulfur withdrawal system. 3,532,468, 10-6-70, Cl. 23-226.

Beazley, Rodney Thomas; and Thornton, Dennis, to Glacier Metal Company Limited, The. Method of manufacturing a joint of the ball and socket type. 3,526,940, 9-8-70, Cl. 29-149.5

Bebinger, Jack E., to Westinghouse Electric Corporation. Domestic dishwasher control. 3,519,796, 7-7-70, Cl. 219-334.

Bebo-Plastik G.m.b.H.: *See—*
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Beccu, Klaus-Dieter, to Battelle Memorial Institute, International Division. Electrical accumulator with a metal hydride serving as the cathodic reactive material arranged in suspension in the electrolyte. 3,520,728, 7-14-70, Cl. 136-6.

Bech, Jorgen. End mill with variable cutting diameter. 3,542,528, 11-24-70, Cl. 29-103.

Becham Group Limited: *See—*
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Bechhofer, Jerry G. Data entry on data processing media. 3,550,492, 12-29-70, Cl. 83-50.

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Olsson, Sven Olof, 3,525,464.

Bechman, William H., to Westinghouse Air Brake Company. Control systems for earthmoving scrapers. 3,512,278, 5-19-70, Cl. 37-8.

Bechman, William H.; and Krumtinger, Robert T., to Westinghouse Air Brake Company. Transmission shift and throttle control. 3,550,478, 12-29-70, Cl. 74-847.

Becht, Cletus A.; Emerick, Robert M.; Horton, James A.; Mount, James E.; and O'Connor, Roderic H., to Goodyear Aerospace Corporation. Virtual image system for training simulator. 3,549,803, 12-22-70, Cl. 178-7.88

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Bechtel, Alfred R., Jr.; Bridges, Luther W., Jr.; and Chandler, Norman F., to Ashworth Bros. Inc. Method and apparatus for side grinding flats on a carding machine. 3,528,136, 9-15-70, Cl. 19-102.

Bechtel International Corporation: *See—*
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Galstaun, Lione S.; and Wasp, Edward J., 3,489,506.
Goerz, David J., Jr.; and Leonard, Byron H., Jr., 3,523,076.
Harlow, Eugene H., 3,541,622.
Schreiber, Henry; Goerz, David J., Jr.; and Hankin, Jerome W., 3,491,457.

Bechtloff, Gert; Schmidt, Manfred; and Tromp, Henricus, to Fried. Krupp Gesellschaft mit beschrankter Haftung. Crane, especially bridge crane. 3,532,226, 10-6-70, Cl. 212-10.

Bechtold, Arthur W., to Chemway Corporation. Dentifrice composition containing aluminum chlorhydroxy allantoinate. 3,514,513, 5-26-70, Cl. 424-54.

Bechtold, Arthur W., to Chemway Corporation. Iontophoretic toothbrush. 3,520,297, 7-14-70, Cl. 128-172.1

Bechtold, Arthur W.; and Alworth, Kathleen M., to Chemway Corporation. Magnetic false eyelashes and method of affixing to the eyelids. 3,516,422, 6-23-70, Cl. 132-53.

Beck, Clayborne E. Automatic lumber scaler. 3,548,168, 12-15-70, Cl. 235-92.

Beck, Dale F.; Hooper, Gordon S.; and Moorehead, Harvey R., to Deseret Pharmaceutical Company, Inc. Intravenous catheter unit with releasable inserter means. 3,537,451, 11-3-70, Cl. 128-214.4

Beck, Earl A. Stamp dispenser. 3,512,678, 5-19-70, Cl. 226-110.

Beck, Edward G., Jr., to Stolle Corporation, The. Method for securing an elongated metal member to a flat metal sheet. 3,514,834, 6-2-70, Cl. 29-157.3

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Beck, Edwin H., to Manufacturers Supplies Company. Apparatus for skiving leather and the like. 3,540,243, 11-17-70, Cl. 69-9.5

Beck, Erich; and Schulz, Heinrich, to Fellner & Ziegler G.m.b.H. Method and device for converting thermoplastic foil waste to a flowable granular material. 3,510,067, 5-5-70, Cl. 241-17.

Beck, Ernst. Tractor driven vibratory harrow. 3,520,372, 7-14-70, Cl. 172-101.

Beck, Fritz: *See—*
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Beck, Fritz; Leitner, Hans; Guthke, Harald; and Wintersberger, Karl, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Carrying out electrochemical reactions. 3,511,765, 5-12-70, Cl. 204-222.

Beck, Gail Edwin, to American Can Company. Synthetic soil block with recess. 3,513,593, 5-26-70, Cl. 47-34.13

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Beck, Gilbert: *See—*
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Beck, Gunter; and Holtschmidt, Hans, to Farbenfabriken Bayer Aktiengesellschaft. 2,4,5-Trichloropyrimidine and 2,4,5,6-tetrachloropyrimidine. 3,506,551, 4-14-70, Cl. 204-158.

Beck, Gunther; and Holtschmidt, Hans, to Farbenfabriken Bayer Aktiengesellschaft. Chloropyrimidines. 3,509,032, 4-28-70, Cl. 204-158.

Beck, Hans. Heatable shrinking tunnel. 3,513,293, 5-19-70, Cl. 219-388.

Beck, Hans. Punch for hot-sealing foils for wrappings. 3,531,621, 9-29-70, Cl. 219-243.
Beck, Hans. Hot air heated shrinking tunnel. 3,531,873, 10-6-70, Cl. 34-223.
Beck, Harold R.; and Swett, James B., to Dart Industries Inc. Mold for congealable foodstuffs and the like. 3,533,593, 10-13-70, Cl. 249-104.
Beck, Herbert P., to Allegheny Ludlum Steel Corporation. Reciprocating grinders. 3,546,818, 12-15-70, Cl. 51-56.
Beck, Howard D. Mold for casting reinforced structures. 3,507,474, 4-21-70, Cl. 249-97.
Beck, Jacob Howard, to BTU Engineering Corporation. Furnace conveyor drive. 3,536,185, 10-27-70, Cl. 198-208.
Beck, James R., to Lilly, Eli, and Company. Novel substituted 1-amino-2-pyrrolidinones. 3,510,495, 5-5-70, Cl. 260-326.3
Beck, Jerry G., to Ford Motor Company. Design coating by electrodeposition. 3,492,214, 1-27-70, Cl. 204-181.
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Beck, Kenneth O., to Corning Glass Works. Cadmium silicate crystals. 3,544,480, 12-1-70, Cl. 252-301.6
Beck, Kurt, to Grossventiltechnik A.G., mesne. Sealing means for dampers and the like. 3,504,883, 4-7-70, Cl. 251-172.
Beck, Leonard R.; and Wilke, Richard N., to Martin Tool Works, Inc. Motor operated fluid valve. 3,523,553, 8-11-70, Cl. 137-596.14
Beck, Paul L., to McGraw-Edison Company. Circuit breaker antipumping control system. 3,530,339, 9-22-70, Cl. 317-54.
Beck, Paul R., 1/2 to Bradshaw, Harry A. Air pollution inhibiting means in the form of a fuel recirculating apparatus for an internal combustion engine. 3,492,980, 2-3-70, Cl. 123-119.
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Beck, Willi K., to King-Seeley Thermos Co. Thermal relay. 3,497,853, 2-24-70, Cl. 337-382.
Beck, Willi K., to King-Seeley Thermos Co. Thermal switch mechanism. 3,513,428, 5-19-70, Cl. 337-322.
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Becke, Friedrich; and Gnad, Josef, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of aromatic nitriles form N-formylated primary amino compounds in contact with a silicate catalyst. 3,514,478, 5-26-70, Cl. 260-465.
Becke, Friedrich; and Hagen, Helmuth, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of aromatic thioamides. 3,502,676, 3-24-70, Cl. 260-267.
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Becker, Dietrich, to Zeiss Ikon Aktiengesellschaft. Film projector with automatic correction of the framing of the picture. 3,504,966, 4-7-70, Cl. 352-160.
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Becker, Franz, to Dynamit Nobel Aktiengesellschaft. Tank mines. 3,521,563, 7-21-70, Cl. 102-8.
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Becker, Gustav; Griepentrog, Heinz; Klebert, Wolfgang; Reich, Friedrich; and Schafer, Karl, to Farbenfabriken Bayer Aktiengesellschaft. Process of finishing textile materials. 3,529,990, 9-22-70, Cl. 117-63.
Becker, Hans-Dieter, to General Electric Company. Hindered phenols and process of producing the same. 3,522,280, 7-28-70, Cl. 260-395.
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Becker, Klaus; Wolski, Karlheinz; and Heptner, Klaus, to Demag-Zug GmbH. Frame member for roller conveyor track. 3,540,561, 11-17-70, Cl. 193-35.
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Becker, Rudolf, to Linde Aktiengesellschaft. Production of high pressure gaseous oxygen by low temperature rectification of air. 3,500,651, 3-17-70, Cl. 62-13.
Becker, Rudolf, to Linde Aktiengesellschaft. Liquefaction of natural gas for peak demands using split-stream refrigeration. 3,511,058, 5-12-70, Cl. 62-9.
Becker, Rudolf, to Linde Aktiengesellschaft. Removal of congealable impurities from gases. 3,513,660, 5-26-70, Cl. 62-12.
Becker, Rudolf, to Linde Aktiengesellschaft. Low temperature fractionation of gaseous mixtures with preliminary and split stream heat exchange. 3,518,839, 7-7-70, Cl. 62-13.
Becker, Rudolf, to Linde Aktiengesellschaft. Process for the separation of mixtures with components having widely spaced boiling points by refraction, partial condensation in a regenerator and recycle of high boiling material. 3,520,143, 7-14-70, Cl. 62-28.
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Becker, Stephen P.; and Wengen, Henry R., to Fargo Mfg. Company, Inc. Transformer tap for underground applications with pressure plate connection. 3,534,323, 10-13-70, Cl. 339-116.
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Bedford, Edward F.; and Tletski, Walter, to Systems Electronics, Inc. Inverter circuit using unijunction frequency dividers. 3,543,132, 11-24-70, Cl. 321-6.

Bedford, Philip, to Atlantic Conveying Equipment Limited. Conveyor equipment. 3,509,978, 5-5-70, Cl. 193-35.

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Bedford, William A., Jr., to Microdot, Inc., mesne. Core set for molding a partial thread. 3,528,637, 9-15-70, Cl. 249-59.

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Bedikian, Melik; and Decnyf, George R., Jr., deceased (by Decnyf, Louise C.; administratrix), to Nu-Dyne & Finishing Co., Inc. Method for imparting a durable water resistant coating to a substrate. 3,536,779, 10-27-70, Cl. 260-827.

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Beebe, Franklyn C., to Du Pont de Nemours, E. I., and Company. Apparatus for detecting foreign objects in or on moving sheets. 3,502,827, 3-24-70, Cl. 200-61.13

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Beebe, Robert E. Rodent barrier attachment for water closets. 3,545,010, 12-8-70, Cl. 4-1.

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Beeken, Basil B., to Pitney-Bowes, Inc. Acoustical sensing device. 3,500,952, 3-17-70, Cl. 181-0.5

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Beer, Palle-Finn, to AB Autokemi. Optical system for measuring absorption of light. 3,489,906, 1-13-70, Cl. 250-218.

Beer, Rudolf E.; Klessig, Clarence E.; and LaBotz, Richard J., to Aerojet-General Corporation. Blades and blade assemblies for turbine engines, compressors and the like. 3,515,499, 6-2-70, Cl. 416-95.

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Beerman, Henry P., to Barnes Engineering Company. Polycrystalline pyroelectric detector in which the crystals are bound together with a plastic cement. 3,511,991, 5-12-70, Cl. 250-83.

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Bell, Christy W., to General Electric Company. High voltage circuit breaker with means for preinserting resistors during closing. 3,500,009, 3-10-70, Cl. 200-144.

Bell, Clifford J., to Westinghouse Electric Corporation. Transformer with magnetic shields. 3,534,311, 10-13-70, Cl. 336-84.

Bell, Clifford J.; and Andersen, Harry C., to Westinghouse Electric Corporation. Butterfly valve. 3,549,123, 12-22-70, Cl. 251-306.

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Bell, Francis R.; and Quade, Robert N., to United States of America, Atomic Energy Commission, mesne. Vapor generator for use in a nuclear reactor. 3,520,356, 7-14-70, Cl. 165-134.

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Bell, Harold W.; Cook, Robert G.; and Hall, Lester G., to North American Rockwell Corporation. Shock absorber including a grooved piston and guide means therefor. 3,536,170, 10-27-70, Cl. 188-311.

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Bell, Norton W., to Bell & Howell Company. Color video camera and image recording systems utilizing striped filters. 3,531,584, 9-29-70, Cl. 178-5.4

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Bell, Stanley C., to American Home Products Corporation. 3-(2-Amino-5-halo, 5-alkyl-and-5-alkoxy-benzoyl) benzene sulfonamides. 3,516,992, 6-23-70, Cl. 260-239.7

Bell, Stanley C., to American Home Products Corporation. 4-Amino-2-halo-5-(2-halo-α-hydroxy-5- sulfamoylbenzyl) benzenesulfonamides. 3,517,037, 6-23-70, Cl. 260-397.7

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Bell, Stanley C.; and Childress, Scott J., to American Home Products Corporation. Benzo[5,6]-[1,2,3]triazino(3,4-b)indazoles and synthesis thereof. 3,492,300, 1-27-70, Cl. 260-248.

Bell, Stanley C.; and Gochman, Carl, to American Home Products Corporation. 5-(2-Aminophenyl)-2,3-dihydro-1H- benzodiazepine-7-sulfonamides. 3,538,082, 11-3-70, Cl. 260-239.

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Bell, Walter, to Star Expansion Industries Corporation. Drill screw and reaming collar therefor. 3,500,713, 3-17-70, Cl. 85-41.

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Belle Isle, Richard A. Forming skins on plastic cellular material. 3,544,675, 12-1-70, Cl. 264-321.

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Bellemare, Gregoire. Apparatus for straightening the bulging of railroad cars. 3,525,249, 8-25-70, Cl. 72-372.

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Beller, Frank W., to Belson, Manufacturing Co., Inc. Campfire pit. 3,515,118, 6-2-70, Cl. 126-29.

Beller, Hans Albert: *See*—
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Beller, Wilbert E., to Controls Company of America. Moisture sensing circuit for actuating a dryer timer motor. 3,521,376, 7-21-70, Cl. 34-45.

Belleson, James G., to International Business Machines Corporation. FM modulator for video recording. 3,528,036, 9-8-70, Cl. 332-16.

Bellet, Gerald Rey; and Spiegelberg, Hans, to Hoffmann-La Roche Inc.10-Alkyl-alkenyl-or benzyl-5-(3-aminopropylidene)-dibenzo[a,d]cycloheptenes. 3,527,806, 9-8-70, Cl. 260-570.8

Bellet, Paul; and Van Thuong, Truong, to Roussel-UCLAF. Microbiological demethylation process. 3,520,778, 7-14-70, Cl. 195-51.

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Bellinger, S. Lawrence, to Mowbot, Inc. Lawn mower. 3,550,714, 12-29-70, Cl. 180-79.1

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Bellinson, Bernard; and Young, Henry R., to Marine Swimming Pool Equipment Company. Swimming pool grab rail with guard panel. 3,494,596, 2-10-70, Cl. 256-24.

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Bellis, Donald R., to Vacuum Power Components, Inc. Vacuum switch. 3,508,021, 4-21-70, Cl. 200-144.

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Bellows, Alfred H., to Polaroid Corporation. Camera exposure apparatus. 3,498,194, 3-3-70, Cl. 95-10.

Bellows, Alfred H., to Polaroid Corporation. Photographic apparatus. 3,505,943, 4-14-70, Cl. 95-89.

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Belolipetsky, Alexei Yakovlevich; Shvedov, Vladimir Tarasovich; Chmil, Viktor Timofeevich; Bragilevsky, Valentin Zinovievich; Elmesev, Sergei Dmitrievich; Babkin, Mikhail Evmenovich; Maximov, Vadim Alexandrovich; and Gelprin, Valentin Nikolaevich. Device for opening and closing hatch of airborne craft. 3,544,046, 12-1-70, Cl. 244-137.

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Belopitov, Nikola R., to Nautshno-Izsledovatelski I Proektno-Konstruktorski Institut Po Elektro-techitscheska Promishlenost. Method of and apparatus for the spark-discharge deposition of conductive materials on a conductive surface. 3,523,171, 8-4-70, Cl. 219-76.

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Bennet, Eugene L.; and Revesz, Robert N., to Laboratory Equipment Corporation. Hot extraction hydrogen analyzer. 3,490,266, 1-20-70, Cl. 73-19.

Bennett, Allan I., to Westinghouse Electric Corporation. Heater immersed zone refined melt. 3,505,032, 4-7-70, Cl. 23-301.

Bennett, Benny Morris; and Lightner, Linn Stephen, to AMP Incorporated. Connector block. 3,538,489, 11-3-70, Cl. 339-198.

Bennett, Benny Morris; and Lightner, Linn Stephen. Flexible tape terminal assembly. 3,545,606, 12-8-70, Cl. 206-56.

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Bennett, Dorothy S.; and Brown, Horace D. End of page signal alarm. 3,532,206, 10-6-70, Cl. 197-189.

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Bennett, Edward Y., Jr., to Magnavox Company, The. Function generator. 3,492,472, 1-27-70, Cl. 235-197.

Bennett, Frank P., to GAF Corporation. Random access means for slide projectors. 3,510,215, 5-5-70, Cl. 353-25.

Bennett, Frederick Ernest; Hewitt, William Allen; Price, Clifford Gerald; and Tobias, Stephen Albert, to National Research Development Corporation. Impulse-forming and like machines. 3,526,121, 9-1-70, Cl. 72-453.

Bennett, Gail, to Bennett Brothers, Inc. Gift catalog. 3,517,947, 6-30-70, Cl. 283-56.

Bennett, George K.; and McCutchen, Robert R., to Caterpillar Tractor Company. Crossflow radiator system. 3,533,465, 10-13-70, Cl. 165-107.

Bennett, Glenn E.; and Olson, Frank A., to Teledyne, Inc. Magnetoelastic signal processing apparatus. 3,514,724, 5-26-70, Cl. 333-30.

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Bennett, Harold E., to United States of America, Navy. Wide range absolute reflectometer. 3,499,716, 3-10-70, Cl. 356-209.

Bennett, Henry Watson, to Miles Laboratories, Inc. Hoffmann-La Roche, Inc., mesne. . 3,533,804, 10-13-70, Cl. 99-134.

Bennett, Hilliard D. Wall bed structure. 3,550,167, 12-29-70, Cl. 5-136.

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Cooper, Glenn D.; and Bennett, James G.,3,544,516.

Bennett, James Russell, to Burroughs Corporation. Digital computer system having multi-line control unit. 3,514,758, 5-26-70, Cl. 340-172.5

Bennett, James Russell; and Hewitt, Robert D., to Burroughs Corporation. Digital data transmission system having means for automatically determining the types of peripheral units communicating with the system. 3,510,843, 5-5-70, Cl. 340-172.5

Bennett, James Russell; and James, Kenneth O., to Burroughs Corporation. Digital data transmission system having means for automatically switching the status of input-output control units. 3,512,133, 5-12-70, Cl. 340-172.5

Bennett, James Russell; and Packard, Roger E., to Burroughs Corporation. Digital computer system. 3,526,878, 9-1-70, Cl. 340-172.5

Bennett, John Charles, to Atomic Power Constructions Limited. Gas-cooled nuclear reactors. 3,510,395, 5-5-70, Cl. 176-59.

Bennett, John D. Crankcase ventilation system. 3,533,385, 10-13-70, Cl. 123-119.

Bennett, John D., to Sun Oil Company. Excavator tooth driving apparatus. 3,540,778, 11-17-70, Cl. 299-67.

Bennett, John D., to Sun Oil Company. Oil well production system. 3,548,939, 12-22-70, Cl. 166-267.

Bennett, John D.; and Chaney, Preston E. Crankcase ventilation system. 3,533,384, 10-13-70, Cl. 123-119.

Bennett, John D.; and Haberthur, Charles R., to Sun Oil Company. Fluid separator with delayed response liquid level control device. 3,526,276, 9-1-70, Cl. 166-52.

Bennett, John D.; Johnson, Ford L.; Mayes, Fred M.; and Peret, John W., to Sun Oil Company. Method and apparatus for drilling well bores. 3,507,344, 4-21-70, Cl. 175-69.

Bennett, John D.; Johnson, Ford L.; Mayes, Fred M.; and Peret, John W., to Sun Oil Company. Method and apparatus for explosive drilling of well bores. 3,516,502, 6-23-70, Cl. 175-4.5

Bennett, John E. R.: *See—*
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Bennett, Marvin; Boyd, Warren E.; and Noble, Joseph C., to International Business Machines Corporation. Fabrication of multilevel ceramic, microelectronic structures. 3,518,756, 7-7-70, Cl. 29-625.

Bennett, Moreland P., to General Electric Company. Tab welded joint and method of making. 3,509,608, 5-5-70, Cl. 27-482.

Bennett, Moreland P., to General Electric Company. Combined mechanical and welded joint and method of making. 3,510,624, 5-5-70, Cl. 219-91.

Bennett, Moreland P., to General Electric Company. Method of making mechanical and welded joint. 3,524,042, 8-11-70, Cl. 219-150.

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Bennett, Reginald Thomas; and Orme, John Edward. Ridable bouncing ball recreational devices. 3,520,534, 7-14-70, Cl. 272-57.

Bennett, Richard C.; and Caldwell, Harold B., to Whiting Corporation. Continuous production of crystalline sucrose. 3,503,803, 3-31-70, Cl. 127-16.

Bennett, Richard H. Removable eye side shield for goggle temples. 3,505,679, 4-14-70, Cl. 2-13.

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Bennett, Robert A., to Bridgeport Plating Company, Inc. Shoe tie. 3,500,508, 3-17-70, Cl. 24-117.

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Bennett, Robert A.; and Viesturs, Eric A. Package for clams. 3,508,930, 4-28-70, Cl. 99-174.

Bennett, Robert H., Jr.; and Van Dyke, Joseph D., Jr., to McDonnell Douglas Corporation. Aircraft cabin noise reduction system with tuned vibration absorbers. 3,490,556, 1-20-70, Cl. 181-33.

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Puckett, William R.; Loder, Thomas R.; Hagler, Travis J.; Bennett, Robert; and Zeman, Samuel,3,529,418.

Bennett, Ronald S. Modular building construction unit and column. 3,500,595, 3-17-70, Cl. 52-79.

Bennett, Roy L. Supports for light arrangements and the like. 3,541,322, 11-17-70, Cl. 240-10.

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Bennett, Wallis R.; and Goodenough, Robert D., to Dow Chemical Company, The. Ferrous malate trihydrates and preparation. 3,493,594, 2-3-70, Cl. 260-439.

Bennett, Willard H. Method of and apparatus for producing a highly concentrated beam of electrons. 3,510,713, 5-5-70, Cl. 313-57.

Bennett, Willard H. Production of nuclear reactions by highly concentrated electron beams. 3,516,906, 6-23-70, Cl. 176-11.

Bennett, Willard H. Production and utilization of high density plasma. 3,526,575, 9-1-70, Cl. 176-1.

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Bennett, William N., to Skisearch, Inc. Press for skis. 3,549,461, 12-22-70, Cl. 156-583.

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Schwinghamer, Robert J.; and Bennight, J D.,3,540,250.

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Benning, Vernon A., to M. L. Aviation Company Limited. Friction measurement. 3,538,742, 11-10-70, Cl. 73-9.

Bennison, Michael Newstead; and Margereson, Gregory John, to Clarkson, W. J., Limited. Stitching of materials. 3,517,630, 6-30-70, Cl. 112-121.12

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Bens, Jean Raymond; and Delarue, Jean-Claude, to Compagnie Generale de Radiologie. Method and apparatus employing an electron target and X-ray filter of the same chemical element for generating X-rays of prescribed energy. 3,515,874, 6-2-70, Cl. 250-86.

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Bensinger, Wolf-Dieter; and Dobler, Helmut, to Daimler-Benz Aktiengesellschaft. Piston pump. 3,510,235, 5-5-70, Cl. 417-462.

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Benson, Carl F.; and Rollins, James W., to Torrington Company, The. Sealed radial and thrust bearing assembly. 3,532,400, 10-6-70, Cl. 308-174.

Benson, Charles L.; and Lenahan, William N., to Howmet Corporation. Eliminating patterns from and hardening of shell molds. 3,519,057, 7-7-70, Cl. 164-35.

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Benson, Glendon M., to Physics International Company, mesne. Electromechanical actuator having an active element of electroexpansive material. 3,501,099, 3-17-70, Cl. 239-585.

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Benson, Gustav E., to Owens-Corning Fiberglas Corporation. Method of producing fluid nozzles for yarn treatment. 3,492,712, 2-3-70, Cl. 29-157.

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Benson, Herbert L., Jr., to Shell Oil Company. Divinylbenzene polymerization inhibitors. 3,527,822, 9-8-70, Cl. 200-666.5

Benson, Homer E., to Consolidation Coal Company. Method and apparatus for producing mixtures of methane, carbon monoxide, and hydrogen. 3,503,724, 3-31-70, Cl. 48-73.

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Benson, John O.; and Peden, Merle F., to General Mills, Inc. Process of making snack products. 3,539,356, 11-10-70, Cl. 99-100.

Benson, Lee B.; Kaufman, Edwin Nathaniel; Nudell, Arnold David; and Scott, Robert Emmett, to Litton Systems, Inc. Apparatus for measuring velocity by the detection of scattered light. 3,528,741, 9-15-70, Cl. 356-28.

Benson, Warren E., Jr., to Kingsbury Technology Inc., mesne. Conversion of analog measurements to digital form. 3,528,008, 9-8-70, Cl. 324-113.

Benson, Warren E., Jr.; and Cragin, Ralph F., to Kingsbury Technology Inc., mesne. Apparatus for measuring a property of a material while processing it between movable members containing electrodes coupled to an oscillatory circuit. 3,488,758, 1-6-70, Cl. 324-61.

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Bentholm, Svend Asger Rud; Hoogendoorn, Hendrik; de Jong, Elkan Joachim; Koenen, Wilhelm Engelinus; and Polderman, Jacobus, to Organon Inc. Process for rendering powders free flowing and the thus obtained powders. 3,499,784, 3-10-70, Cl. 117-100.

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Bercik, Paul G.; and Henke, Alfred M., to Gulf Research & Development Company. Multistage isomerization process with inter-stage cooling. 3,541,181, 11-17-70, Cl. 260-683.67

Bercovici, Lucian, to Sonotone Corporation. Acoustic electromagnetic transducer device having means for protecting coil-wire insulation. 3,491,215, 1-20-70, Cl. 179-114.

Berczynski, Frank A., to A. E. Construction Corporation. Slide valve casing. 3,499,462, 3-10-70, Cl. 137-340.

Berdahl, James M.; and Majewski, Robert F., to Mead Johnson & Company. 1-Aminoalkyl-1-phenylindene process and intermediate therefor. 3,504,031, 3-31-70, Cl. 260-570.8

Berdick, Murray: *See—*
Holliday, William M.; Berdick, Murray; Bell, Saul A.; and Kiritsis, George C.,3,488,418.
Holliday, William M.; Berdick, Murray; Bell, Saul A.; and Kiritsis, George C.,3,524,910.

Berding, Andrew R., to International Business Machines Corporation. Memory cell having a resistance network to prevent saturation. 3,493,788, 2-3-70, Cl. 307-291.

Bereardinelli, Frank M.: *See—*
Wissbrun, Kurt F.; Bereardinelli, Frank M.; and Price, Martin B.,3,488,322.

Beregi, Laszlo; Hugon, Pierre; and Duhault, Jacques, to Science Union et Cie, Societe Francaise de Recherche Medicale. N-phenylsulphonyl-N'-(3-azabicyclo-alkyl) urea derivatives. 3,501,495, 3-17-70, Cl. 260-326.3

Beregi, Laszlo; Hugon, Pierre; and Duhault, Jacques, to Science Union et Cie, Societe Francaise de Recherche Medicale. Isoindolino-sulfonylurea derivatives. 3,503,962, 3-31-70, Cl. 260-239.6

Beregi, Laszlo; Hugon, Pierre; and Duhault, Jacques, to Societe en nom collectif Science Union et Cie Societe Francaise de Recherche Medicale. 3,4-Alkylene-dioxybenzyl biguanides. 3,531,499, 9-29-70, Cl. 260-340.5

Beregi, Laszlo; Hugon, Pierre; and Duhault, Jacques, to Societe en nom Collectif Science Union et Cie, Societe Francaise de Recherche Medicale. Isoindolino-sulphonylurea compounds. 3,535,335, 10-20-70, Cl. 260-326.1

Beregi, Laszlo; Hugon, Pierre; and Laubie, Michel, to Societe en nom collectif 'Science Union et Cie, Societe Francaise de Recherche Medicale'. Piperonyl-piperazine compounds. 3,523,120, 8-4-70, Cl. 260-268.

Beregi, Laszlo; Hugon, Pierre; and Le Louarec, Jean-Claude, to Societe en Nom Collectif Science Union et Cie, Societe Francaise de Recherche Medicale. Primary amides. 3,504,028, 3-31-70, Cl. 260-557.

Berejka, Anthony J.: *See—*
Stucker, Nova E.; and Berejka, Anthony J.,3,488,315.

Berek, Eberhard, to Werkzeugmaschinenfabrik Oerlikon Buhrle & Co. Rocket-launcher magazine. 3,489,059, 1-13-70, Cl. 89-1.801

Berends, Emerson: *See—*
Warrick, Edward C.; and Berends, Emerson,3,538,964.

Berenschot, Donald J.: *See—*
Miller, Eugene J., Jr.; Mais, Ago; Berenschot, Donald J.; and Berger, Robert L.,3,510,521.

Berenson, Herman; Dornbush, Albert Carl; and Wehner, Donald Clifford, to American Cyanamid Company. Novel antimicrobial laundering compositions. 3,506,577, 4-14-70, Cl. 252-106.

Beresic, John I. Hopper material supply indicator. 3,550,447, 12-29-70, Cl. 73-301.

Beresin, Peter W.; and Sieraki, Frank W., to Ultronic Systems Corporation. Synchronous digital multiplex communication system including switchover. 3,519,750, 7-7-70, Cl. 179-15.

Beresnev, Boris Ivanovich; Martynov, Evgeny Dmitrievich; and Livshits, Leopold Davydovich. Device for packing gaps, mainly in high pressure apparatus. 3,492,009, 1-27-70, Cl. 277-112.

Beresniewicz, Aleksander, to Du Pont de Nemours, E. I., and Company. Method for reducing residual vinyl acetate monomer. 3,534,009, 10-13-70, Cl. 260-87.3

Berezansky, Louis; and Hill, Mervin C., to Band B Company. Pull cord type conveyor belt control switch. 3,531,610, 9-29-70, Cl. 200-156.

Berezin, Evelyn; Wolf, Edgar; Cohen, William D.; and Marino, Francis C., to Digitronics Corporation. Information signal generation apparatus. 3,508,227, 4-21-70, Cl. 340-174.1

Berezin, Gilbert H., to Du Pont de Nemours, E. I., and Company. Preparation of 3-oxabicyclo [3.1.1] heptane-2-one. 3,525,754, 8-25-70, Cl. 260-343.5

Bereznak, John, to International Telephone and Telegraph Corporation. Feature equipment for use in electronic switching telephone systems. 3,515,820, 6-2-70, Cl. 179-175.2

Berg, Allen C.: *See—*
Costello, Matthew J.; Ziron, Frank J., 3rd; Bleggi, Henry; and Berg, Allen C.,3,545,375.

Berg, Alvin L., to TRW Inc. Laser movable target positioning apparatus. 3,519,359, 7-7-70, Cl. 356-172.

Berg, Arthur A., to Berg Mfg. & Sales Co. Water ejection valve for vehicle brake system. 3,533,433, 10-13-70, Cl. 137-204.

Berg, Arthur A., to Berg Mfg. & Sales Co. Tractor-trailer brake system. 3,545,815, 12-8-70, Cl. 303-7.

Berg, Bengt Hendrik: *See—*
Edstrom, John Olof; Innerman, Sven Eric; Berg, Bengt Hendrik; and Mills, Brian Edward,3,487,675.

Berg, Carl John, to Minnesota Mining and Manufacturing Company. Polyamide-acid and polyimides prepared from aromatic diamines containing at least two tetraarylmethane nuclei. 3,536,666, 10-27-70, Cl. 260-47.

Berg, Charles J., Jr.; McInerney, James R.; and Moit, Daniel D., to Sherwin-Williams Company, The. Polyester modified organosol composition, a dried coating of which has improved mar resistance and metal marking resistance. 3,549,571, 12-22-70, Cl. 260-21.

Berg, David A., to Allis-Chalmers Manufacturing Company. Earthmoving attachment mounting. 3,539,022, 11-10-70, Cl. 172-805.

Berg, David A., to Allis-Chalmers Manufacturing Company. Fluid leakage drain for tractor winch. 3,539,046, 11-10-70, Cl. 192-85.

Berg, Dennis: *See—*
Keenan, George; and Berg, Dennis,3,513,842.

Berg, Edward T. Arrangement for installing fascies, gravel stops and gutters along the edges of roofs. 3,501,873, 3-24-70, Cl. 52-11.

Berg Electronics, Inc.: *See—*
Collins, Timothy F.; and Brubaker, Weldon L., 3,538,581.
Corns, William M., 3,510,824.
Landman, Dirk, 3,500,709.
Mancini, Lloyd, 3,517,375.
Olsson, Billy E., 3,504,328.
Olsson, Billy E., 3,517,377.

Berg, Eric H. Blasting mat. 3,539,135, 11-10-70, Cl. 245-4.

Berg, Ernst; Husslein, Peter; Heinen, Peter; and Rongen, Josef, to Glanzstoff AG. Simultaneously twisting and interlacing/a continuous multifilament yarn. 3,537,248, 11-3-70, Cl. 57-34.

Berg, Florence Ray: *See—*
Sandler, Stanley Robert; Berg, Florence Ray; and Kitazawa, George,3,531,436.

Berg, Frederick M.: *See—*
Bylund, Linton D.; Kneeskern, Vernon G.; Wuetig, Frederick L.; and Berg, Frederick M.,3,528,801.

Berg, Harold B. Grass catcher for rotary mowers. 3,513,649, 5-26-70, Cl. 56-202.

Berg, Harold B.; and Reynolds, Edward R., said Reynolds assor to said Berg. Attachment apparatus. 3,503,192, 3-31-70, Cl. 56-202.

Berg, Harold B.; and Reynolds, Edward R., said Reynolds assor to said Berg. Bag supporting attachment for rotary mowers. 3,503,193, 3-31-70, Cl. 56-202.

Berg, Heinrich: *See—*
Wenz, Herbert; and Berg, Heinrich,3,492,959.

Berg, Howard C.: *See—*
Purcell, Edward M.; and Berg, Howard C.,3,523,610.

Berg, Jack A.; and Howard, Herbert H., to Poolmaid, Inc., mesne. Automatically extensible and retractable pool cleaning apparatus. 3,530,511, 9-29-70, Cl. 4-172.15

Berg Mfg. & Sales Co.: *See—*
Berg, Arthur A., 3,533,433.
Berg, Arthur A., 3,545,815.
Berg, Stanley; and Dobrikin, Harold L., 3,515,169.
Cannella, Joseph L., 3,507,542.
Cannella, Joseph L., 3,507,543.
Cannella, Joseph L., 3,512,843.
Dobrikin, Harold L., 3,497,267.
Dobrikin, Harold L., 3,497,268.
Dobrikin, Harold L.; and Klimek, Boleslaw, 3,502,003.
Dobrikin, Harold L.; and Klimek, Boleslaw, 3,512,552.
Dobrikin, Harold L., 3,520,315.
Dobrikin, Harold L., 3,529,107.
Dobrikin, Harold L., 3,529,288.
Klimek, Boleslaw, 3,492,052.
Klimek, Boleslaw, 3,519,773.

Berg, Nephi Edward, to Hendrix Electronics Inc., mesne. Electrical signal generator. 3,500,212, 3-10-70, Cl. 328-14.

Berg, Nephi Edward, to Hendrix Wire of Cable Corporation, mesne. Electric key switching unit. 3,533,028, 10-6-70, Cl. 335-205.

Berg, Orville C.: *See—*
Kessler, Newlin W.; and Berg, Orville C.,3,508,766.

Berg, Otto E., to United States of America, National Aeronautics and Space Administration. Dust particle injector for hypervelocity accelerators. 3,509,419, 4-28-70, Cl. 315-111.

Berg, Paul A.: *See—*
Rucinski, Michael Elmer; and Berg, Paul A.,3,507,594.

Berg, Quentin. Contact lug. 3,525,070, 8-18-70, Cl. 339-276.

Berg, Quentin. Header block assembly. 3,539,974, 11-10-70, Cl. 339-157.

Berg, Quentin. Connector block. 3,541,490, 11-17-70, Cl. 339-75.

Berg, Quentin. Method of forming electrical connections. 3,541,494, 11-17-70, Cl. 339-75.

Berg, Robert D. W., to DeBourgh Manufacturing Company. Lockable latch mechanism. 3,521,919, 7-28-70, Cl. 292-7.

Berg, Robert H. Continuous flow particle size analyser apparatus having suspension level maintaining means. 3,502,972, 3-24-70, Cl. 324-71.

Berg, Robert H. Flushing means for fluid metering apparatus and the like. 3,523,546, 8-11-70, Cl. 137-240.

Berg, Robert H.; Youngdahl, Carl Arthur; and Ellison, Lynn E., to Berg, Roberta V., mesne. Apparatus for making emulsions. 3,546,129, 12-8-70, Cl. 252-359.

Berg, Robert L.: *See—*
Stevenson, Kenneth M., Jr.; Berg, Robert L.; Weiss, Arnold A.; Stockard, James L.; and Shipp, Robert F.,3,509,765.

Berg, Roberta V.: *See—*
Berg, Robert H.; Youngdahl, Carl Arthur; and Ellison, Lynn E., 3,546,129.

Berg, Rodney; and Cox, Robert P., 49.50% to said Berg, 5% to said Cox, 22.75% to Barnesis, John G., and 22.75% to Huset, Carmen A. Gas detecting apparatus. 3,493,484, 2-3-70, Cl. 204-195.

Berg, Roy C., to Universal Oil Products Company. Selective dehydrogenation of long-chain normal paraffin hydrocarbons. 3,531,544, 9-29-70, Cl. 260-683.3

Berg, Rudolph G.; and Tate, Bryce E., to Pfizer, Chas., & Co., Inc. Use of polyamides derived from iminodiacetic acid and related compounds in improving the wet and dry strength of paper. 3,526,608, 9-1-70, Cl. 260-29.2

Berg, Samuel F.: *See—*
Belonger, Robert L.; and Berg, Samuel F.,3,542,201.

Berg, Samuel, to Allmanna Svenska Elektriska Aktiebolaget. Electric contact means. 3,551,629, 12-29-70, Cl. 200-166.

Berg, Stanley; and Dobrikin, Harold L., to Berg Mfg. & Sales Co. Shutoff cock. 3,515,169, 6-2-70, Cl. 137-625.25

Berg, T. G. Owe. Method and apparatus for removing particulates from flowing gases. 3,496,701, 2-24-70, Cl. 55-6.

Berg-Johannessen, Per R.: *See—*
MacDonald, Ernest G.; and Berg-Johannessen, Per R.,3,537,584.

Bergander, Otto; and Geibel, Peter, to Fichtel & Sachs A.G. Clutch arrangement. 3,534,837, 10-20-70, Cl. 192-48.8

Bergandi Manufacturing Company, Inc.: *See—*
Rohrbacher, Herbert E., 3,512,760.

Bergem, Normann; Blindheim, Ulf; Onsager, Olav-Torgeir; and Wang, Hagbarth, to Sentralistitutt for Industriell Forskning. Process for dimerization, codimerization, polymerization and copolymerization of mono-olefines. 3,536,778, 10-27-70, Cl. 260-683.15

Bergemann, Joachim; and Knoess, Walter, to Varta Aktiengesellschaft. Process for producing a pressure-resistant, edge- sealing mounting for porous discs. 3,511,906, 5-12-70, Cl. 264-262.

Bergemann, Werner E.; Dentinger, Thomas W.; and Newton, Edwin W., to Gleason Works, The. Machine for running together bevel or hypoid gears. 3,528,286, 9-15-70, Cl. 73-162.

Bergen, Donald W., to Scholl Mfg. Co. Inc., The. Splint liner. 3,548,820, 12-22-70, Cl. 128-89.

Bergen Laboratories, Inc.: *See—*
Hoberman, Max; and Leibowitz, Marshall, 3,512,049.

Bergendahl, Kavalli Alverius, to Rosengrens, E. A., Aktiebolag. Lock with adjustable tumbler assembly. 3,514,982, 6-2-70, Cl. 70-355.

Bergendal, Arne; and Fransson, Johnny, to Aktiebolaget Vibro-Verken. Mechanical vibrator. 3,543,590, 12-1-70, Cl. 74-87.

Berger, Abe, to General Electric Company. Process for preparing beta-aminoethylthioalkyl- silanes. 3,488,373, 1-6-70, Cl. 260-448.2

Berger, Abe, to General Electric Company. Nitrogen-containing organosilicon materials and methods for producing them. 3,494,951, 2-10-70, Cl. 260-448.2

Berger, Abe, to General Electric Company. Method for making silicon hydrides. 3,496,206, 2-17-70, Cl. 260-448.2

Berger, Abe, to General Electric Company. Cyclic silane esters and methods for making them. 3,505,380, 4-7-70, Cl. 260-448.8

Berger, Abe, to General Electric Company. Certain pyridyl thio ether silanes. 3,506,674, 4-14-70, Cl. 260-294.8

Berger, Abe, to General Electric Company. Nitrogen-containing organosilicon materials. 3,517,001, 6-23-70, Cl. 260-248.

Berger, Abe, to General Electric Company. Cyclic silane esters and methods for making them. 3,539,610, 11-10-70, Cl. 260-448.8

Berger, Abe: *See—*
Holdstock, Norman G.; Berger, Abe; Selin, Terry G.; and Thimineur, Raymond J.,3,549,590.
Wilkus, Edward V.; and Berger, Abe,3,489,781.
Wilkus, Edward V.; and Berger, Abe,3,544,595.

Berger, Alan; and Schneider, Alfred L., Jr., to Ethicon, Inc., mesne. Suture package. 3,545,608, 12-8-70, Cl. 206-63.3

Berger, Alfred; and Abel, Heinz, to Ciba Limited. Process for dyeing nitrogen-containing textile fibres. 3,529,922, 9-22-70, Cl. 8-54.

Berger, Arthur; Borgaes, Edeltraut E.; and Longstreet, John C., to Baxter Laboratories, Inc. Method of treating hypertension in animals with aminoguanidines. 3,506,680, 4-14-70, Cl. 424-326.

Berger Bros. Company, The: *See—*
Bernfeld, Isabel Murray, 3,534,741.

Berger, Bryce, Limited: *See—*
Curran, John Patrick Stewart; and Elliot, David, 3,487,783.
Worby, Donald, 3,490,384.

Berger, Carl: *See—*
Arrance, Frank C.; and Berger, Carl,3,542,604.

Berger, Carl, to McDonnell Douglas Corporation, mesne. Inorganic permselective membranes and method of making same. 3,497,394, 2-24-70, Cl. 136-153.

Berger, Carl, to McDonnell Douglas Corporation, mesne. Regenerable fuel cell. 3,546,020, 12-8-70, Cl. 136-86.

Berger, Carl; and Arrance, Frank C., to McDonnell Douglas Corporation, mesne. Method of making inorganic ion exchange membrane. 3,490,953, 1-20-70, Cl. 136-153.

Berger, Carl; and Kelmers, Andrew D., to McDonnell Douglas Corporation, mesne. Ion exchange membrane and fuel cell containing same. 3,497,389, 2-24-70, Cl. 136-86.

Berger, Carl; Levy-Pascal, Arie E.; and Mc Clelland, Donald H., to McDonnell Douglas Corporation, mesne. Battery having a porous insoluble hydrous inorganic oxide separator. 3,489,610, 1-13-70, Cl. 136-6.

Berger, Charles V., to Universal Oil Products Company. Catalytic conversion process. 3,515,765, 6-2-70, Cl. 260-669.

Berger, Charles V., to Universal Oil Products Company. Alkylation-dehydrogenation process. 3,525,776, 8-25-70, Cl. 260-669.

Berger, Charles V., to Universal Oil Products Company. Method for converting ethylbenzene to styrene. 3,542,889, 11-24-70, Cl. 260-669.

Berger, Charles V.; and Donaldson, George R., to Universal Oil Products Company. C_8-Alkylaromatic isomerization process. 3,538,173, 11-3-70, Cl. 260-668.

Berger, Christian D., to Hoover Company, The. Floor polisher with motor mounted on a pivoted handle. 3,518,712, 7-7-70, Cl. 15-49.

Berger, Frank Milan; and Fukui, George Masaaki, to Carter-Wallace, Inc. Reducing hypersensitivity to penicillins with certain phenoxypropanols. 3,549,766, 12-22-70, Cl. 424-271.

Berger, Frank M.: *See—*
Ludwig, Bernard J.; Berger, Frank M.; and Fukui, George M.,3,544,560.

Berger, Frank M.; Ludwig, Bernard J.; and Rosselet, Jean Pierre, to Carter-Wallace, Inc. Xerosin fractions and method of preparation. 3,531,567, 9-29-70, Cl. 424-123.

Berger, George C. Vehicle speed controller. 3,543,601, 12-1-70, Cl. 74-513.

Berger, Gideon, to Velsicol Chemical Corporation. Method for the control of aquatic plant life. 3,540,875, 11-17-70, Cl. 71-66.

Berger, Heinz: *See—*
Henderson, Eulas W.; and Berger, Heinz,3,533,752.

Berger, Heinz. Apparatus for the catalytic removal of noxious substances from engine exhaust gases. 3,503,716, 3-31-70, Cl. 23-288.

Berger, Herbert: *See—*
Haack, Erich; Berger, Herbert; and Vomel, Wolfgang,3,532,691.

Berger, Herbert; Dold, Otto; Kruger, Dietrich; Stach, Kurt; Schmidt, Felix Helmut; and Stork, Harald, to Boehringer, C. F., & Soehne GmbH. Diagnostic aids for use in the detection of bacteria in biological and other fluids. 3,496,066, 2-17-70, Cl. 195-103.5

Berger, Herbert; Gall, Rudi; Stach, Kurt; and Voemel, Wolfgang, to Boehringer Mannheim Gesellschaft mit beschrankter Haftung. 5-Nitrofuran and 5-nitrothiophene derivatives. 3,522,256, 7-28-70, Cl. 260-250.

Berger, Herbert; Haack, Erich; Achelis, Johann Daniel; and Vomel, Wolfgang, to Boehringer, C. F., & Soehne GmbH. 5-Nitrofuran derivatives. 3,491,091, 1-20-70, Cl. 260-240.

Berger, Herbert; Stach, Kurt; and Voemel, Wolfgang, to Boehringer Mannheim Gesellschaft mit beschrankter Haftung. Triazolo-tetrazolo-pyridazine derivatives. 3,506,656, 4-14-70, Cl. 260-240.

Berger, Horst H.: *See—*
Antipov, Igor; Feinberg, Irving; Van de Zande, Charles H.; Wing, Wailey L.; and Berger, Horst H.,3,507,036.

Berger, Horst H.; Callaghan, Norman M., Jr.; and Najmann, Knut K., to International Business Machines Corporation. Monolithic stabilized reference voltage source. 3,524,125, 8-11-70, Cl. 323-22.

Berger Industries, Inc.: *See—*
Bergman, Herman, 3,527,934.

Berger, James E., to Kent-Moore Corporation. Method of heat treating ferrous alloy sheets. 3,510,367, 5-5-70, Cl. 148-131.

Berger, James K., to Singer-General Precision, Inc. Rotating memory clock recorder. 3,540,022, 11-10-70, Cl. 340-174.1

Berger, Jean-Pierre L.: *See—*
Lucas, Pierre M.; Duquesne, Jean F.; Berger, Jean-Pierre L.; and Dissel, Jean-Pierre,3,497,630.

Berger, Leo; and Corraz, Alfred John, to Hoffmann-La Roche Inc. 5-(4-Pyridylethyl)-pyridoindole derivatives. 3,502,688, 3-24-70, Cl. 260-295.

Berger, Leo; and Corraz, Alfred John, to Hoffmann-La Roche Inc. 5-(Pyridylalkyl)-pyridoindole derivatives. 3,522,262, 7-28-70, Cl. 260-296.

Berger, Leo; Corraz, Alfred John; and Lee, John, to Hoffmann-La Roche Inc. 4-(N,N,-disubstituted-amino)-piperidines. 3,531,487, 9-29-70, Cl. 260-293.

Berger, Leo; and Sternbach, Leo Henryk, to Hoffmann-La Roche Inc. 2-Chloromethyl-4-cycloalkylquinazoline-3-oxides. 3,503,974, 3-31-70, Cl. 260-251.

Berger, Marion J., to Schurz Controls Corporation. Pipe fitting. 3,498,642, 3-3-70, Cl. 285-189.

Berger, Marion J., to Schurz Controls Corporation. Roller seal valve. 3,538,953, 11-10-70, Cl. 137-625.46

Berger, Mildred E. Ring toss game apparatus. 3,529,827, 9-22-70, Cl. 273-100.

Berger, Paul J. Ski vehicle. 3,540,750, 11-17-70, Cl. 280-16.

Berger, Ralph. Continuous process for the production of electrical circuits. 3,535,780, 10-27-70, Cl. 29-626.

Berger, Raymond H., to United States of America, Navy, mesne. Electronic module. 3,546,362, 12-8-70, Cl. 174-52.

Berger, Richard M.; and Brooks, Elwin W., to American Filtrona Corporation. Tobacco smoke filter. 3,533,416, 10-13-70, Cl. 131-266.

Berger, Richard S., to Shell Oil Company. Light and heat stabilized polypropylene compositions. 3,502,613, 3-24-70, Cl. 260-45.8

Berger, Richard: *See—*
Roehr, Zbislaw M.; Berger, Richard; and Plasse, Paul A.,3,523,988.

Berger, Robert L.: *See—*
Miller, Eugene J., Jr.; Mais, Ago; Berenschot, Donald J.; and Berger, Robert L.,3,510,521.

Berger, S. Edmund: *See—*
Carr, Donald R.; and Berger, S. Edmund,3,510,456.

Berger, Victor M. Cooking unit. 3,514,301, 5-26-70, Cl. 99-390.

Berger, Victor M. Cooking unit with exhaust. 3,537,442, 11-3-70, Cl. 126-299.

Berger, Wolfgang; and Weber, Reinhold, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Annular die for extruders, particularly an annular die for the production of blown tubular film and sheeting from expandable thermoplastics. 3,525,125, 8-25-70, Cl. 18-14.

Bergere, Emric W. Taper rivet. 3,516,699, 6-23-70, Cl. 287-189.36

Bergero, Ramon, 1/2 to Henderson, Alva M. High voltage test probe. 3,522,533, 8-4-70, Cl. 324-149.

Bergeron, Alfred L., to Pneumatic Scale Corporation. Closure applying apparatus. 3,491,516, 1-27-70, Cl. 53-317.

Bergeron, Bruce A., to Curtis Development & Mfg. Co. Terminal block and method of manufacture thereof. 3,512,121, 5-12-70, Cl. 339-198.

Bergeron, Norman A.: *See—*
Downing, Frank V.; and Bergeron, Norman A.,3,550,175.

Bergeson, Richard P.; Burkland, Charles W.; and Smith, Thomas R., to Maytag Company, The. Dishwasher pump. 3,542,496, 11-24-70, Cl. 417-423.

Bergey, Carl G., to Bell Telephone Laboratories, Incorporated. Pulse partitioner. 3,519,961, 7-7-70, Cl. 333-7.

Bergey, John M. K.: *See—*
Thomas, Terry; Alfonsi, Eric A.; Alessandro, Frank J.; Gaebler, Gunther G.; and Bergey, John M. K.,3,538,313.

Bergey, John; and Anater, Raymond J., to Hamilton Watch Company. Escapement accelerometer. 3,491,601, 1-27-70, Cl. 73-517.

Bergh Bros. Co., Inc.: *See—*
Bergh, George G.; and Bergh, Robert G., 3,531,012.

Bergh, George G.; and Bergh, Robert G., to Bergh Bros. Co., Inc. Sliding lid box construction. 3,531,012, 9-29-70, Cl. 220-41.

Bergh, Robert G.: *See—*
Bergh, George G.; and Bergh, Robert G.,3,531,012.

Bergholm, Carl Arne, to Svenska Cellulosa Aktiebolaget. Counterflow washing method for removing liquid from a product distributed therein. 3,515,632, 6-2-70, Cl. 162-60.

Bergholm, Joseph O., to Bell Telephone Laboratories, Incorporated. Synchronization of code systems. 3,509,278, 4-28-70, Cl. 178-69.5

Berghout, Cornelis Willem; de Kort, Gijsbertus Marie Arnoldus Josephus; and Luteijn, Anthonie Izaak, to U.S. Philips Co., Inc., mesne. Method of manufacturing superconductive Nb_3 Sn-wrapped wire. 3,496,622, 2-24-70, Cl. 29-191.6

Bergische Achsenfabrik Fr. Kotz & Sohne: *See—*
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Bergische Metallwarenfabrik Dillenberg & Co. KG: *See—*
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Bergische Stahl-Industrie: *See—*
Klassen, Horst; and Otto, Alfred, 3,513,949.
Otto, Alfred; and Gronemann, Manfred, 3,530,960.

Bergishagen, Finn: *See—*
Langhjelm, Henrik G.; Bergishagen, Finn; and Hutchinson, Kenneth A.,3,521,795.

Bergland, Glenn D.; and Klahn, Richard, to Bell Telephone Laboratories, Incorporated. Digital processor for calculating fourier coefficients. 3,544,775, 12-1-70, Cl. 235-151.31

Berglein, Adolf Otto. Ballpoint fountain pen having a ballpoint refill. 3,506,369, 4-14-70, Cl. 401-217.

Bergles, Eduard. Multiple-speed gear hub of the axially displaceable shifting wheel type for bicycles, motorcycles or the like. 3,536,171, 10-27-70, Cl. 192-6.

Bergling, Charles Gunnar Birger: *See—*
Bergling, Karl Aldo Ludvig; and Bergling, Charles Gunnar Birger,3,492,703.

Bergling, Karl Aldo Ludvig; and Bergling, Charles Gunnar Birger, to Ingenjorsfirma Hebe AB. Apparatus for cutting a cast body of porous concrete in plastic state by means of a cutting device mounted on the apparatus. 3,492,703, 2-3-70, Cl. 25-112.

Berglund, Bengt Gunnar: *See—*
Holm, Kurt Anders; Nord, Sven Erik Leonard; and Berglund, Bengt Gunnar,3,498,885.

Berglund, Bjorn: *See—*
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Berglund, Carl N., to Bell Telephone Laboratories, Incorporated. Filamentary device comprising thermoresistive material and filter utilizing same. 3,543,196, 11-24-70, Cl. 333-70.

Berglund, Carl N. Solid state scanner utilizing a thermal filament. 3,546,491, 12-8-70, Cl. 307-298.

Berglund, Edward D.; Miller, Carl A.; and Nystuen, Marcus I., to Economics Laboratory, Inc. Apparatus for cleaning and detarnishing silverware. 3,497,445, 2-24-70, Cl. 204-222.

Berglund, Lars Goran Gabriel, to Aktiebolaget Bahco. Burner. 3,531,229, 9-29-70, Cl. 431-262.

Berglund, Per Borje; and Berglund, Stig Olof. Carrier for prefabricated tooth crowns. 3,521,357, 7-21-70, Cl. 32-71.

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Bergman, Charles T.; and Weidner, Jack E., to Brandt Automatic Cashier Co. Apparatus for feeding paper currency. 3,539,179, 11-10-70, Cl. 271-39.

Bergman, Frank C., to Garcy Corporation. Structural assembly. 3,492,772, 2-3-70, Cl. 52-633.

Bergman, Gerald David; and Denton, Tony C., to U.S. Philips Corporation, mesne. Semiconductor integrated circuits. 3,508,127, 4-21-70, Cl. 317-235.

Bergman, Herman, to Berger Industries, Inc. Take-apart lamp harps. 3,527,934, 9-8-70, Cl. 240-148.

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Ostrofsky, Bernard; and Bergman, Jack N.,3,497,728.

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Bergman, John G., Jr.; and Kurtz, Stewart K., to Bell Telephone Laboratories, Incorporated. Optical devices utilizing nonlinear halate crystals. 3,506,843, 4-14-70, Cl. 307-88.3

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Bergman, Robert J., to Sperry Rand Corporation. Bakore memory simultaneously storing in DRO and NDRO modes. 3,508,223, 4-21-70, Cl. 340-174.

Bergman, Sylvester; and LeBlanc, Robert B., to Dow Chemical Company, The. Disperse dyeing of polyester cellulose blends with an aqueous suspension of the sulfonated polystyrene sodium salt. 3,507,604, 4-21-70, Cl. 8-21.

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Bergmann, Elmer G.; and Ritter, Vern D., to Tyee Construction Company. Sealed power transformer. 3,544,938, 12-1-70, Cl. 336-92.

Bergmann, Oswald R.; Cowan, George R.; and Holtzman, Arnold H., to Du Pont de Nemours, E. I., and Company. Metal composites with low-melt content bonds. 3,493,353, 2-3-70, Cl. 29-191.

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Bergmann, Wilhelm; and Soelter, Dieter, to Eppendorf Geraetebau Netheler and Hinz GmbH. Interlocking holding devices. 3,521,785, 7-28-70, Cl. 220-23.4

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Bergmeyer, Hans Ulrich; and Moellering, Hans, to Boehringer Mannheim Gesellschaft mit beschrankter Haftung. Method and agent for the enzymatic determination of glucose. 3,509,025, 4-28-70, Cl. 195-103.5

Bergna, Horacio E.; and Daniels, Alma U., to Du Pont de Nemours, E. I., and Company. Metal bonded carbide compositions. 3,493,351, 2-3-70, Cl. 29-182.7

Bergna, Horacio E.; and Daniels, Alma U., to Du Pont de Nemours, E. I., and Company. Metal bonded alumina-carbide compositions. 3,542,529, 11-24-70, Cl. 29-182.7

Bergomi, Angelo; Tatlow, John Colin; and Burdon, Jim, to Montecatini Edison S.p.A. Process for the preparation of perfluoroindane and perfluorostyrene. 3,511,883, 5-12-70, Cl. 260-650.

Bergquist, Dwight H.; Cunningham, Franklin E.; and Cook, Charles H., to Henningsen Foods, Inc. Means for forming a continuous coating on particles. 3,548,782, 12-22-70, Cl. 118-20.

Bergquist, Erwin F. Carpet cap strip. 3,514,914, 6-2-70, Cl. 52-273.

Bergsma, Rudolph; and Holbrook, Rex R., to Chrysler Corporation. Tamper-proving odometer. 3,539,783, 11-10-70, Cl. 235-96.

Bergsoe, Paul, & Son AB: *See*—
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Bergson, Gustan. Contact device. 3,546,929, 12-15-70, Cl. 73-78.

Bergstedt, Karl Abdon, to AB Penta. Hydraulic mechanism for boats with tiltable propeller housing. 3,548,777, 12-22-70, Cl. 115-41.

Bergstedt, Karl Erik, to Sunds Aktiebolag. Mixing apparatus. 3,503,591, 3-31-70, Cl. 259-25.

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Bergstrom, Clarence G., to Searle, G. D., & Co.9β-Methyl-3,11β,17α-trioxygenated-19-norpregna- 1,3,5(10)-trien-20-ones. 3,541,067, 11-17-70, Cl. 260-397.45

Bergstrom, Erik Herman. Apparatus for use in the construction of concrete lined tunnels. 3,487,649, 1-6-70, Cl. 61-85.

Bergstrom, James W., to General Motors Corporation. Multilayered mechanically oriented ferrite. 3,535,200, 10-20-70, Cl. 161-162.

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Bergstrom, Roger C., to Anderson Bros. Mfg. Co. Apparatus for packaging in protective atmosphere. 3,509,686, 5-5-70, Cl. 53-112.

Bergstrom, Roger C., to Anderson Bros. Mfg. Co. Sanitary packaging machine. 3,530,641, 9-29-70, Cl. 53-167.

Bergstrom, Roger C.; and Jacobson, William P., to Anderson Bros. Mfg. Co. Reclosable package. 3,495,759, 2-17-70, Cl. 229-45.

Bergstrom, Theodore R., to Minnesota Mining and Manufacturing Company. Metal fabrication. 3,510,296, 5-5-70, Cl. 75-201.

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Beriger, Ernst, to Ciba Limited. Pesticidal preparation containing aromatic phosphoric or phosphonic acid esters. 3,538,221, 11-3-70, Cl. 424-225.

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Berk, Bernard; Robison, Robert S.; and Korzun, John N., to Squibb, E. R., & Sons, Inc. Process for isolating L-asparaginase. 3,511,754, 5-12-70, Cl. 195-66.

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Berk, Edward J., to Westinghouse Air Brake Company. Flow diverting shaker conveyor trough. 3,543,916, 12-1-70, Cl. 198-220.

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Berk, Edward J.; and Fontaine, Paul J., to Westinghouse Air Brake Company. Furnace charger. 3,522,891, 8-4-70, Cl. 214-21.

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Berk, William J.: *See*—
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Berkau, Eugene E.; and Hocutt, William R., to Monsanto Company. Polyesterolymerization process, prepolymer and product. 3,551,386, 12-29-70, Cl. 260-75.

Berke, Philip A.; and Rosen, William E. Certain bis-(polychloro-2-hydroxyphenyl) acetic acid lactones. 3,514,472, 5-26-70, Cl. 260-343.3

Berkeland, Arnold. Deal tray and mounting therefor. 3,549,086, 12-22-70, Cl. 232-44.

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Berkeley, John P.: *See*—
Hinrichs, John F.; Rudorf, Sigurd K.; and Berkeley, John P.,3,535,487.

Berkeley, Robert S. L.: *See*—
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Berkelhamer, Louis H., to Consolidated Electronics Industries Corporation. Method of coating an electrical unit with ceramic material. 3,489,828, 1-13-70, Cl. 264-61.

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Berker, Karl August, to Gunther Papenmeier. Mixing device comprising a circulating mixture container having a sloping axis of rotation. 3,536,301, 10-27-70, Cl. 259-85.

Berkey, David F., to Minnesota Mining and Manufacturing Company. Adhesive-assembled magnetic-tape reel. 3,545,696, 12-8-70, Cl. 242-71.8

Berkey, Donald C.; to General Electric Company. Gas turbine engines. 3,546,882, 12-15-70, Cl. 60-204.

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Berkovits, Abe. Garment hanger coupling. 3,516,126, 6-23-70, Cl. 24-84.

Berkovits, Barouh, to American Optical Corporation. Demand pace maker. 3,528,428, 9-15-70, Cl. 128-421.

Berkowitz, Irving L., to Kason Hardware Corporation. Self-closing hinged doors and hinges therefor. 3,510,986, 5-12-70, Cl. 49-386.

Berkowitz, Michael M., to Princo Instruments, Inc. Thermally-responsive instruments and art of making same. 3,487,639, 1-6-70, Cl. 73-1.

Berkowitz, Sidney, to FMC Corporation. Stabilization of chlorinated hydrocarbons. 3,496,241, 2-17-70, Cl. 260-652.5

Berkowitz, Sidney, to FMC Corporation. Stabilization of chloroacetaldehydes. 3,535,384, 10-20-70, Cl. 260-601.

Berkowitz, Sidney; and Meadow, Morton, to FMC Corporation. Oxychlorination of mixed hydrocarbons. 3,496,242, 2-17-70, Cl. 260-664.

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Berkowitz, Sidney; and Morgan, Albert R., Jr., to FMC Corporation. Production of dichloroethane and trichloroethane. 3,496,243, 2-17-70, Cl. 260-662.

Berkowitz, Sidney; and Morgan, Albert R., Jr., to FMC Corporation. Production of dichloroethane. 3,496,244, 2-17-70, Cl. 260-662.

Berks, William I.; Acker, Roy M.; and Smith, Webster D., to TRW Inc. Expandable parabolic reflector. 3,541,569, 11-17-70, Cl. 343-915.

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Berleyoung, Walter Jerome; Kreuter, Kenneth G.; and Mueller, Klaus P., to Robertshaw Controls Company. Small pneumatic thermostat constructions. 3,503,552, 3-31-70, Cl. 236-1.

Berleyoung, Walter J., to Robertshaw Controls Company. Method of sonic welding. 3,506,510, 4-14-70, Cl. 156-73.

Berleyoung, Walter J., to Robertshaw Controls Company. Method of sonic welding. 3,506,511, 4-14-70, Cl. 156-73.

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Berleyoung, Walter J.; Kreuter, Kenneth G.; and Mueller, Klaus P., to Robertshaw Controls Company. Control device manipulator means. 3,543,594, 12-1-70, Cl. 74-89.18

Berlin, Irving. Photo-electric light-activated switch apparatus. 3,538,379, 11-3-70, Cl. 315-159.

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Berlin, Norton H., to Vehoc Corporation. Fluid control system for liquid storage apparatus. 3,544,289, 12-1-70, Cl. 48-174.

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Berlyn, Martin J., to Hailwood & Ackroyd Limited. Fuel injector for internal combustion engines. 3,528,613, 9-15-70, Cl. 239-453.

Berlyn, Martin J., to Clayton Dewandre Holdings Limited. Fuel injector for internal combustion engines. 3,531,052, 9-29-70, Cl. 239-533.

Berman, Elliot; and Philbrick, Richard W., to Itek Corporation. Color-reversible anti-glare mirror. 3,507,563, 4-21-70, Cl. 350-278.

Berman, Herbert M., to Opti-Lume Corporation. Method of photographic reproduction. 3,510,221, 5-5-70, Cl. 355-77.

Berman, Herbert. Dental drill assembly. 3,521,358, 7-21-70, Cl. 32-27.

Berman, Irwin; and Patel, Parbhubhai Kanabhai, to Foster Wheeler Corporation. Pressure vessels. 3,489,309, 1-13-70, Cl. 220-3.

Berman, Irwin; Thakkar, Bharat S.; Schroeder, Joseph W.; and Smith, Herman P., to Foster Wheeler Corporation. Method and apparatus for explosively forming a tube within a tube sheet. 3,543,370, 12-1-70, Cl. 29-157.4

Berman, Isidore A.: *See*—
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Berman, Lawrence U., to Bell & Howell Company. Reverse lithographic printing process. 3,532,532, 10-6-70, Cl. 117-38.

Berman, Leon, to C.I.T.-Compagnie Industrielle des Telecommunications. Suppressed carrier vestigial-sideband communication system. 3,492,580, 1-27-70, Cl. 325-49.

Berman, Leon, to C.I.T.-Compagnie Industrielle des Telecommunications. Multiple frequency synthesizer providing a plurality of selected frequencies in a spectrum of frequencies. 3,512,103, 5-12-70, Cl. 331-2.

Berman, Leon, to C.I.T.-Compagnie Industrielle des Telecommunications. Call control system for a radiocommunication network. 3,551,815, 12-29-70, Cl. 325-55.

Berman, Marvin A., to Capitol Hardware Manufacturing Co., Inc. Circular garment rack. 3,533,513, 10-13-70, Cl. 211-177.

Berman, Oscar H. Hard-boiled egg cooking and shelling device. 3,530,788, 9-29-70, Cl. 99-325.

Berman, Richard M., to Gulton Industries, Inc. Body electrode assembly. 3,545,432, 12-8-70, Cl. 128-2.06

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Bermel, Thomas W., to Corning Glass Works. Inhibited OR-NOR gate. 3,519,007, 7-7-70, Cl. 137-81.5

Bermel, Thomas W., to Corning Glass Works. Saturable proportional fluid amplifier device. 3,524,460, 8-18-70, Cl. 137-81.5

Berningham, Christopher W., to Berningham Construction Limited. Pile driver. 3,550,693, 12-29-70, Cl. 173-43.

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Bernaix, Jean, to Commissariat a l'Energie Atomique, and Societe Anonyme Coyne et Bellier. Method and device for extensometric measurement. 3,535,920, 10-27-70, Cl. 73-88.5

Bernal, G. Enrique; Chen, Di; and Walters, Wayne L., to Honeywell Inc. Multi-dimensional optical data display apparatus. 3,501,220, 3-17-70, Cl. 350-150.

Bernal Incorporated: *See*—
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Bernard, Arthur A.; and Bernard, Richard A., to Bernard Welding Equipment Company. Arc welding gun components. 3,514,570, 5-26-70, Cl. 219-130.

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Bernard, David W., to Honeywell Inc. Strobe system employing a multichannel recording transducer for recording strobe bits. 3,491,352, 1-20-70, Cl. 340-174.1

Bernard, David W., to Honeywell Inc. Slotted-pole solenoid. 3,524,155, 8-11-70, Cl. 335-279.

Bernard, David W.; and Schwab, Roland F., to Honeywell Inc. Verification system. 3,490,010, 1-13-70, Cl. 340-174.

Bernard, George G., to Union Oil Company of California. Foam drive oil recovery process. 3,529,668, 9-22-70, Cl. 166-273.

Bernard, George G., to Union Oil Company of California. Method for water flooding heterogeneous petroleum reservoirs. 3,530,937, 9-29-70, Cl. 166-270.

Bernard, Georges: *See—*
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Bernard, Georges, to Merlin Gerin. Electro-optical measurement device for an aerial high voltage conductor having semi-reflecting mirror situated perpendicularly to direction of light beam. 3,513,322, 5-19-70, Cl. 250-220.

Bernard, Georges; and Pelenc, Yves, to Societe Anonyme. Magneto-optical voltage measuring device utilizing polarized light. 3,502,978, 3-24-70, Cl. 324-96.

Bernard, Richard A.: *See—*
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Bernardi, Eugene L.; and Brazdovic, Rudolph T., 1/2 to Wood Industries, Inc., and 1/2 to Reichhold Chemicals, Inc. Method and apparatus for applying a printing plate to a support saddle. 3,550,283, 12-29-70, Cl. 33-184.5

Bernardi, Eugene L.; and Turner, William F., to Reichhold Chemicals, Inc. Casting machine. 3,541,642, 11-24-70, Cl. 18-17.

Bernardi, Eugene P. Automatic vehicle cleansing device. 3,496,908, 2-24-70, Cl. 118-2.

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Bernardi, Luigi; Coda, Severina; Pegrassi, Lorenzo; and Suchowsky, Giselbert Karl, to Societa Farmaceutici Italia. Substituted 3,1-benzoxazin-2-one. 3,526,621, 9-1-70, Cl. 260-244.

Bernardi, Robert J.; and Collier, Robert E., to Pacific Plantronics, Inc. Electroacoustic apparatus. 3,524,951, 8-18-70, Cl. 179-156.

Bernardin, Leo J., to Kimberly-Clark Corporation. Absorbent pad. 3,525,338, 8-25-70, Cl. 128-290.

Bernardin, Leo J., to Kimberly-Clark Corporation. Sanitary napkin and disposable wrapper therefor. 3,550,592, 12-29-70, Cl. 128-290.

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Bernasconi, Raymond; and Schenker, Karl, to Ciba Corporation. N-Heterocyclic substituted cyclohexanes. 3,530,126, 9-22-70, Cl. 260-247.

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Bernath, Oskar, to North American Rockwell Corporation. Cloth splitting attachment. 3,489,184, 1-13-70, Cl. 139-291.

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Bernazani, Henry A., Jr. Punch press having selectable cutting punches. 3,491,941, 1-27-70, Cl. 234-112.

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Berner, Arthur J. Vectorcardiograph analyzer. 3,548,813, 12-22-70, Cl. 128-2.06

Berner, Erling, to Berner Industries, Inc. Porous products of foamed polymeric materials and method of producing same. 3,506,533, 4-14-70, Cl. 161-123.

Berner, Erling, to Berner Industries, Inc. Apparatus and method for the continuous production of slabs or sheets composed of foamed polymeric material having a cellular core. 3,526,556, 9-1-70, Cl. 156-79.

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Bernert, Robert E.; and El Bindari, Ahmed, to Avco Corporation. Method of manufacturing composite superconductive conductor. 3,509,622, 5-5-70, Cl. 29-599.

Bernett, Marianne K.: *See—*
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Bernewasser, Horst, to Kochs Adlernahmaschinen Werke AG. Lubricating device for lockstitch sewing machine loopers. 3,513,794, 5-26-70, Cl. 112-256.

Berney, Jean Claude, to Golay, Bernard, S.A. Electronic frequency divider. 3,513,330, 5-19-70, Cl. 307-225.

Berney, Sheldon, to Reliance Products Ltd. Plastic container and package. 3,499,582, 3-10-70, Cl. 222-183.

Bernfeld, Isabel Murray, to Berger Bros. Company, The. Back supporting girdle. 3,534,741, 10-20-70, Cl. 128-533.

Bernhard, Claus: *See—*
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Bernhard, Ernst, to AB Internavia. Ship, in particular for the transportation of containers. 3,499,409, 3-10-70, Cl. 114-72.

Bernhard, Hermann, 'Argo' Gesellschaft mit beschrankter Haftung fur Feinmechanik. Suction filter. 3,529,727, 9-22-7, Cl. 210-234.

Bernhardt Apparatebau G.m.b.H. & Co.: *See—*
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Bernhardt, Donn E.; and Nowell, John R., to General Electric Company. Diode coupled read and write circuits for flip-flop memory. 3,540,005, 11-17-70, Cl. 340-173.

Bernhardt, Gunther; Buning, Robert; Bierwirth, Egon; and Trautvetter, Werner, to Dynamit Nobel Aktiengesellschaft. Process for metallizing formed objects made from thermoplastics. 3,547,784, 12-15-70, Cl. 204-20.

Bernhardt, Jost; and Hase, Georg, to Bernhardt Apparatebau G.m.b.H. & Co. Device for inflating floating bodies of life-saving equipment. 3,526,339, 9-1-70, Cl. 222-0.5

Bernhardt, Karl H.: *See—*
Grobe, Volker; Ulbricht, Joachim; Reichert, Hans W.; Fark, Heinz P. K.; Buchmann, Edeltraud E.; Hertel, Ulrich E. E.; Kopcke, Dieter A. K.; Michaelis, Walter K.; Peter, Eberhard P. H.; Aurich, Joachim G.; Roth, Eberhard W.; Bender, Alfred A.; and Bernhardt, Karl H.,3,520,661.

Bernhart, Finn W.: *See—*
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Bernhart, Walter D.; and Fetter, William A., to Computer Graphics, Inc., mesne. Planar illustration method and apparatus. 3,519,997, 7-7-70, Cl. 340-172.5

Bernheim, Marc Pierre Robert: *See—*
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Bernheimer, Ralph; and Friedman, Morton R., to Esso Research and Engineering Company. Process for fermentation and recovery of microbial cells. 3,530,039, 9-22-70, Cl. 195-96.

Bernholdt, Harry F. Method for producing corned meat products. 3,549,385, 12-22-70, Cl. 99-107.

Bernholtz, Herbert A.: *See—*
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Berni, Ralph J.; Benerito, Ruth R.; and McKelvey, John B., to United States of America, Agriculture. Esterification of cellulosic textiles unsaturated long chain fatty acids in the presence of trifluoroacetic anhydride using controlled cellulose- acid-anhydride ratios. 3,493,319, 2-3-70, Cl. 8-120.

Berni, Ralph J.; Gonzales, Elwood J.; and Benerito, Ruth R., to United States of America, Agriculture. Low temperature catalysts for cellulose etherifications. 3,527,658, 9-8-70, Cl. 117-139.4

Berni, Ralph J.: *See—*
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Soignet, Donald M.; Benerito, Ruth R.; and Berni, Ralph J.,3,494,719.

Bernier, Louis E.; and Giblin, James P., to Wright, E. T., & Co., Inc. Golf shoe and bottom therefor. 3,492,744, 2-3-70, Cl. 36-59.

Bernier, Louis E.; and Giblin, James P., to Wright, E. T., & Co., Inc. Cleated anchor plate. 3,529,370, 9-22-70, Cl. 36-59.

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Bernier, Raymond, to Corporation Societe Civile de Prototype Technique Electronique Soprotekel. Fitting a solenoid core to a pole piece structure. 3,497,845, 2-24-70, Cl. 335-234.

Bernier, Robert V., to Tru-D Company. Three dimensional cinematography. 3,531,191, 9-29-70, Cl. 352-57.

Berning, Peter H.: *See—*
Grubb, Albany D.; Browne, Charles M.; and Berning, Peter H.,3,537,944.

Berning, Rudolf, to Astor-Werke Otto Berning & Co. Belt with belt buckle. 3,540,085, 11-17-70, Cl. 24-77.

Berno, Harmond E., to Pennsylvania Wire Rope Corporation. Control cable and anchor structure assembly. 3,528,313, 9-15-70, Cl. 74-501.

Bernotas, Ralph J.; Cheers, Ronald M.; and Holub, Charles R., to General Motors Corporation. Ripper attachment for tractor. 3,527,308, 9-8-70, Cl. 172-464.

Bernotus, Donald E., to Verson Allsteel Press Company. Overload protection driving mechanism. 3,550,473, 12-29-70, Cl. 74-584.

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Berns, Charles, to Edwards Company, Inc. Selective suppression control of amplifiers in intercommunication systems. 3,530,245, 9-22-70, Cl. 179-1.

Bernshausen, Fritz. Tree fruit cultivating and harvesting system. 3,507,101, 4-21-70, Cl. 56-1.

Bernshausen, Fritz. Method of harvesting fruit. 3,545,182, 12-8-70, Cl. 56-1.

Bernshtein, Vitaly Moiseevich: *See—*
Ioffe, David Moiseevich; Bernshtein, Vitaly Moiseevich; Bolkhovitin, Sergei Vasilievich; Voskoboinikova, Lidia Mikhailovna; Ezhov, Mikhail Dmitrievich; Polyan, Efim Pinkhasovich; Semenova, Antonina Mikhailovna; Semenova, Nina Grigorievna; and Shirokova, Ekaterina Alexeevna,3,491,378.
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Bernstein, Bernard H.; and Martin, Donald F., to Physics International Company. Shielded high voltage pulse generator. 3,505,533, 4-7-70, Cl. 307-110.

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Diassi, Patrick Andrew; Weisenborn,Frank Lee; and Bernstein, Jack,3,539,562.

Bernstein, Jack, to Squibb, E. R., & Sons, Inc., mesne. 3-Azabicyclo[3.2.]nonane-3-ethyl benzilate. 3,499,888, 3-10-70, Cl. 260-239.

Bernstein, Jack; and Losee, Kathryn Alice, to Squibb, E. R., & Sons, Inc. Bis-triiodoisophthalamic acid compounds. 3,541,141, 11-17-70, Cl. 260-518.

Bernstein, Jack; and Yale, Harry Louis, to Squibb, E. R., & Sons, Inc. Pentafluorocinnamanilide derivatives. 3,515,753, 6-2-70, Cl. 260-558.
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Bernstein, Joseph T., to McDonnell Douglas Corporation. Separation of gas mixtures such as methane and nitrogen mixtures. 3,516,262, 6-23-70, Cl. 62-28.

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Bernutat, Paul. Grinding plate lining for tube and ball-mills. 3,533,570, 10-13-70, Cl. 241-299.

Bernutz, Johannes; and Klivar, Erich, to International Standard Electric Corporation. Relay arrangements with reed contacts. 3,523,262, 8-4-70, Cl. 335-112.

Berny, Rene; Coppe, Jacques; and Tavernier, Georges, to Societe dite: Usinor. Device for aligning products of considerable length, more particularly hot-rolled products. 3,529,758, 9-22-70, Cl. 226-93.

Beroset, John E.; and Large, Donald M., to Western Electric Company, Incorporated. Methods of and apparatus for storing and testing paramagnetic articles. 3,537,580, 11-3-70, Cl. 209-73.

Beroza, Morton; and Bowman, Malcolm C. Apparatus for combining a gas chromatograph with a spectrophotofluorometer and other devices by means of a flowing liquid interface. 3,506,824, 4-14-70, Cl. 250-43.5

Berquist, John E. Bracket for sheet music. 3,544,056, 12-1-70, Cl. 248-443.

Berr, Charles E., to Du Pont de Nemours, E. I., and Company. Polyketone copolymers. 3,516,966, 6-23-70, Cl. 260-47.

Berr, Saul: *See—*
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Berrey, Harry R., to United Aircraft Corporation. Temperature sensor. 3,513,706, 5-26-70, Cl. 73-363.

Berridge, Frederick L., to Robb, Joseph, & Company Limited. Oil seal for journal bearings. 3,545,769, 12-8-70, Cl. 277-131.

Berridge, Norman James, to National Research Development Corporation. Continuous production of curd. 3,520,697, 7-14-70, Cl. 99-116.

Berrie, Emile Georges. Hydraulically controlled vibro-hammer. 3,529,681, 9-22-70, Cl. 173-116.

Berriman, Lester P.: *See—*
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Berrios, Nicasio Hernandez. Ball handling apparatus for billiard and pool tables. 3,545,751, 12-8-70, Cl. 273-11.

Berrong, Howard B., to Mobil Oil Corporation. Structured board composed of wax-coated cellulosic particles. 3,519,469, 7-7-70, Cl. 117-100.

Berry, Alva A. Take-apart cubical quadrant antenna spreader assembly. 3,513,615, 5-26-70, Cl. 52-633.

Berry, Andrew C., to Kimberly-Clark Corporation. Apparatus for making multi-ply sheet product. 3,488,242, 1-6-70, Cl. 156-428.

Berry, Clifford E.: *See—*
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Berry, David John; and Hardwick, Roy, to Yorkshire Imperial Metals Limited. Securing tubes into tube plates. 3,503,110, 3-31-70, Cl. 29-157.4

Berry, Elmer W., to Du Pont de Nemours, E. I., and Company. Tickler assembly for riser pipe of fused salt electrolysis cell for the production of sodium. 3,497,447, 2-24-70, Cl. 204-279.

Berry, George Hamilton, to Beriola Machine Company Pty. Limited. Freely rotatable multiple drum display device. 3,522,741, 8-4-70, Cl. 74-142.

Berry, Herbert D., to Minster Machine Company, The. Friction pin unit, especially for quick change dies and the like. 3,495,495, 2-17-70, Cl. 85-5.

Berry, Homer H. Clinical diagnostic device for halitosis. 3,507,269, 4-21-70, Cl. 128-2.

Berry, John F.: *See—*
Barcus, Lester M.; and Berry, John F.,3,543,629.

Berry, John William, to American Cyanamid Company. System for encoding information for automatic read- out producing symbols having both photoluminescent material as coding components and visible material and illuminating with both visible and ultraviolet light. 3,500,047, 3-10-70, Cl. 250-71.

Berry, John William; Herrmann, Raymond Anthony; and Barnum, Le Roy Harold, to American Cyanamid Company. Radiation sensitive penetrometer for paper. 3,512,003, 5-12-70, Cl. 250-222.

Berry, Jon R.: *See—*
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Berry, Kenneth L., to Du Pont de Nemours, E. I., and Company. Fibrous corundum and its preparation. 3,514,256, 5-26-70, Cl. 23-141.

Berry, Margaret P. Ornamental covering for eyeglasses. 3,526,450, 9-1-70, Cl. 351-52.

Berry Metal Company: *See—*
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Berry, William W., 3,525,509.

Berry, Peter M.; and Kavalir, John Joe, to Uniroyal, Inc. Composition of matter and use thereof in joint sealing. 3,523,493, 8-11-70, Cl. 94-18.

Berry, Richard C.: *See—*
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Berry, Robert D., to United States of America, Navy. Flueric variable thrust injector. 3,507,116, 4-21-70, Cl. 60-39.74

Berry, Robert D.; and Witcher, Jay, to United States of America, Navy. Constant depth buoyancy system. 3,520,263, 7-14-70, Cl. 114-16.

Berry, Robert H.: *See—*
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Berry, Thomas E.; and Benesi, Hans A., to Shell Oil Company. Crystalline alumino-silicate catalyst. 3,549,558, 12-22-70, Cl. 252-455.

Berry, Thomas G.; Medal, Einar; and Reichle, Donald, to Fairchild Hiller Corporation. Tubular extendable structure. 3,503,164, 3-31-70, Cl. 52-108.

Berry, Thomas; and Peacock, Frank R., to Rome Machine & Foundry Company. Textile goods dyeing apparatus with vapor cover. 3,498,092, 3-3-70, Cl. 68-210.

Berry, Walter C., Jr., to Du Pont de Nemours, E. I., and Company. Apparatus and process for liquid treatment of shaped structures. 3,493,422, 2-3-70, Cl. 117-102.

Berry, William J. Dialyzer agitator. 3,503,877, 3-31-70, Cl. 210-19.

Berry, William O., to Alpha Industries, Inc. High frequency sweep generator using sequentially switched frequency multiplier stages. 3,548,341, 12-15-70, Cl. 331-178.

Berry, William W., to Berry Metal Company. Injection lance with a nozzle adapted for above the bath operation. 3,525,509, 8-25-70, Cl. 266-34.

Berry, William W.; and Herff, Louis M., to Berry Metal Company. Injection lance with an immersible nozzle. 3,525,508, 8-25-70, Cl. 266-34.

Berryhill, Robert A., to Hiltin, Inc. Air conditioning method and system. 3,532,156, 10-6-70, Cl. 165-3.

Berryman, Charles O., to Eaton Yale & Towne, Inc. Vehicle safety apparatus. 3,506,281, 4-14-70, Cl. 280-150.

Berryman, Robert D.; McEowen, James R.; and Saltus, George E., to Bell Telephone Laboratories, Incorporated. Executive conferencing system. 3,530,254, 9-22-70, Cl. 179-18.

Berryman, Walter Pascoe; and Shumsheruddin, Ali Anser, to Tilghman Wheelabrator Limited. Shot blasting on/off servo control system. 3,529,383, 9-22-70, Cl. 51-9.

Berryman, William O., to Schlumberger Technology Corporation. Guided frangible slips. 3,497,002, 2-24-70, Cl. 166-123.

Berryman, William O., to Schlumberger Technology Corporation. Setting tool apparatus. 3,519,074, 7-7-70, Cl. 166-123.

Berryman, William O.; and Kisling, James W., III, to Schlumberger Technology Corporation. Frangible solid slips with retaining band. 3,497,003, 2-24-70, Cl. 166-134.

Berst, Clinton G. Foot soaping and scrubbing device. 3,548,439, 12-22-70, Cl. 15-104.92

Berstorff, Hermann, Maschinenbau GmbH: *See*—
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Bersworth, Frederick C., to Weston Chemical Corporation. Mixed anhydrides produced by the reaction of phosphorus acids and polyamino polycarboxylic acid chelating agents. 3,502,748, 3-24-70, Cl. 260-926.

Bersworth, Frederick C., to Weston Chemical Corporation. Heavy metal chelates of amino hydrazide chelating agents. 3,507,892, 4-21-70, Cl. 260-429.

Bertea, Octavian: *See*—
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Berteaud, Andre-Jean Charles; Pascard, Hubert Marcel Joseph; and Vautier, Roger Jean Joseph. High frequency power limiter utilizing a ferro- magnetic thin layer. 3,534,276, 10-13-70, Cl. 333-17.

Bertein, Francois Marie Leon Henri, to International Standard Electric Corporation. Gas laser having concentrically arranged hyperboloidal tube sections. 3,496,486, 2-17-70, Cl. 331-94.5

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Bertele, Ludwig; and Bertele, Jurgen, said Bertele, Jurgen assor to Wild Heerbrugg Aktiengesellschaft. Oil immersion objective with flattened image field containing a free-standing biconcave lens of strong refractional power. 3,530,436, 9-22-70, Cl. 350-176.

Bertelink, Jan B. Breastpocket handkerchief. 3,492,677, 2-3-70, Cl. 2-279.

Bertelli, Aldo, to Francia Formaceutici S.r.l. Benzamido butyric acid derivatives. 3,489,793, 1-13-70, Cl. 260-471.

Bertelli, Guido: *See*—
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Bertellini, Gianfranco: *See*—
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Bertels, Josef. Flow control for flowable mediums. 3,506,238, 4-14-70, Cl. 251-193.

Bertelsen, Bruce I.: *See*—
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Bertelsen, William R., 1/2 each to Martin, William E., and Martin Engineering Company. Air-cushion vehicle. 3,512,602, 5-19-70, Cl. 180-115.

Bertelsmann, Dieter: *See*—
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Berth, Herbert; and Hirsch, Gerhard, to Telefunken Patentverwertungsgesellschaft m.b.H. Connecting arrangement for corrugated tube waveguides utilizing an elastic collar element. 3,535,661, 10-20-70, Cl. 333-98.

Berth, Peter; and Reese, Gunter, to Therachemie Chemisch Therapeutische Gesellschaft m.b.H. Aminopolyphosphonic acids and polyphosphonic acids and derivatives for the protection of hair. 3,542,918, 11-24-70, Cl. 424-62.

Berthaud, Jean, to Commissariat a l'Energie Atomique. Valve operating device. 3,490,733, 1-20-70, Cl. 251-58.

Berther, Clau: *See*—
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Berthiez, Charles William. Worktable supporting an independent larger table for rotation and linear translation thereof. 3,507,188, 4-21-70, Cl. 90-58.

Berthman, Adolf; and Lingens, Paul, to Dynamit Nobel Aktiengesellschaft. Explosive compositions containing an aromatic nitro compound and calcium phosphate. 3,496,039, 2-17-70, Cl. 149-2.

Berthold, H., Messinglinienfabrik und Schriftgiesserei A.G.: *See*—
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Berthold, Richard Vogt: *See*—
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Gmunder, John; and Berthold, Richard,3,546,227.

Berthold, Wolfgang Karl, to International Telephone and Telegraph Corporation. Image correlation device. 3,519,349, 7-7-70, Cl. 356-4.

Berthold, Wolfgang K.; Coles, Donald K.; and Sianeros, Thomas E., to International Telephone and Telegraph Corporation. Optical signal correlation device. 3,498,718, 3-3-70, Cl. 356-5.

Berthon, Robert: *See*—
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Berthoud, Charles E.; and Huntley, Allan R., to Lummus Company, The. Rigging apparatus. 3,507,628, 4-21-70, Cl. 23-288.

Berti, Richard A.; and Bruckner, Eric. Discharge assembly for a fire extinguisher. 3,536,139, 10-27-70, Cl. 169-26.

Bertin & Cie: *See*—
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Bertin, Jean Henri; Le Nabour, Marcel Pierre; and Cayla, Jean Lucien Charles, 3,545,701.
Duthion, Louis; Marzouvanlian, Arsene; and Cabassut, Andre E. R., 3,527,318.
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Bertin, Daniel; and Perronnet, Jacques, to Roussel-UCLAF. Novel triazines. 3,551,421, 12-29-70, Cl. 260-249.8

Bertin, Daniel; and Pierdet, Andre, to Roussel-UCLAF. Synthetic penicillins and process for their preparation. 3,494,917, 2-10-70, Cl. 260-239.1

Bertin, Daniel; and Pierdet, Andre, to Roussel-UCLAF. Novel 11β-alkoxy-$\Delta^{1,3,5(10)}$- gonatrienes. 3,526,648, 9-1-70, Cl. 260-397.45

Bertin, Daniel; Pierdet, Andre; Nedelec, Lucien; and Gasc, Jean-Claude, to Roussel-UCLAF. 13β-Lower alkyl-$\Delta^{4,9}$-conadiene-3-ones. 3,519,654, 7-7-70, Cl. 260-349.

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Faure, Marc Henri Jean, 3,530,798.
Marchal, Philippe Albert Hippolyte; Jannot, Marcel; Simonnet, Jacques Louis Paul; and Pavlin, Cyrille Francois, 3,541,801.
Pavlin, Cyrille Francois; Mace, Edouard M. E. A.; Jannot, Marcel Augustin Joseph; and Salmon, Benjamin Jean Marcel, 3,526,099.

Bertin, Henri, to Etat Francais (French State). Binocular observation and sighting instruments. 3,528,724, 9-15-70, Cl. 350-159.

Bertin, Jean Henri. Bertin & Cie Buoyant system for surface effect machines. 3,548,967, 12-22-70, Cl. 180-117.

Bertin, Jean Henri; and Jacquot, Michel, to Bertin & Cie. Gas-cushion devices intended to support or guide a movable load. 3,493,070, 2-3-70, Cl. 180-119.

Bertin, Jean Henri; Le Nabour, Marcel Pierre; and Cayla, Jean Lucien Charles, to Bertin & Cie. Lift or lift/propulsion system for aircraft. 3,545,701, 12-8-70, Cl. 244-12.

Bertin, Jean H., to Societe Bertin & Cie. Ground-effect vehicle or other movable body. 3,536,155, 10-27-70, Cl. 180-121.

Bertin, Mario; Moiso, Ugo; and Craia, Giulio, to Aziende Colori Nazionale Affini ACNA S.p.A. Reactive monochlorotriazine azo dyestuffs containing a sodium salt of an aniline-N-omega-methane sulfonic acid group. 3,501,452, 3-17-70, Cl. 260-146.

Bertin, Mario; Moiso, Ugo; Craia, Giulio; and Pasquarelli, Aldo, to Aziende Colori Nazionali Affini ACNA S.p.A. Reactive azo dyestuffs containing an N-omega methane sulfonic acid-N-triazinyl aniline group. 3,546,201, 12-8-70, Cl. 260-146.

Bertinotti, Floriana; and Danielli, Ezio, to Montecatini Edison S.p.A. Dyeable polyolefin bulk textile fibers and process for their preparation. 3,501,371, 3-17-70, Cl. 161-169.

Bertoglio, Guido D., to Centra Anstalt. Machine for the automatic controlled manufacture and output of plastic bags. 3,527,633, 9-8-70, Cl. 156-353.

Bertoglio, Guido, to Centra Anstalt. Method for manufacturing bags of thermoplastic material and bag obtained thereby. 3,508,374, 4-28-70, Cl. 53-29.

Bertolacini, Ralph J.: *See*—
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Bertolacini, Ralph J., to Standard Oil Company. Catalyst and reforming process employing same. 3,546,102, 12-8-70, Cl. 208-138.

Bertolasi, Robert B., to Amsted Industries Incorporated, mesne. Random gap pulsing system for EDM. 3,509,305, 4-28-70, Cl. 219-69.

Bertolini, Adriano. Electrode for treatment of teeth. 3,502,076, 3-24-70, Cl. 128-172.1

Bertone, Richard A.: *See*—
Bowditch, Hoel L.; William, George F.; and Bertone, Richard A.,3,515,162.

Bertorelli, Orlando L.; and Dacey, John F., to Huber, J. M., Corporation. Foamed plastisol composition containing a reactive silica material. 3,511,787, 5-12-70, Cl. 260-2.5

Bertram, Ernst & Wilhelm: *See*—
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Bertram, Wilhelm E., Jr. Automatic exposure control for cameras. 3,528,357, 9-15-70. Cl. 95-64.

Bertram, Wilhelm, to Ernst & Wilhelm Bertram, Fabrik Phototechn. Automatic exposure control device for photographic cameras. 3,542,462, 11-24-70, Cl. 352-141.

Bertram, Wilhelm; and Amesbichler, Georg, to Bertram, Ernst & Wilhelm. Shutter for photographic cameras. 3,541,942, 11-24-70, Cl. 95-62.

Bertrams, Johannes Kurt, to U.S. Philips Corporation, mesne. Flash-lamp holder. 3,518,417, 6-30-70, Cl. 240-1.3

Bertrams, Johannes Kurt; Sypkens, Gabriel Leonard; and Blom, Johannes Cornelis, to U.S. Philips Corporation, mesne. Flash lamp cartridge assembly. 3,508,040, 4-21-70, Cl. 240-1.3

Bertrand, Jack: *See*—
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Best, Donald T., to Sperry Rand Corporation. Thermo-resistive recording technique. 3,511,973, 5-12-70, Cl. 235-61.11

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Bestian, Herbert; and Schnabel, Horst, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process for the preparation of N-vinyl-carboxylic acid amides. 3,526,620, 9-1-70, Cl. 260-239.3

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Beyerman, Hugo Christiaan, to Organon Inc. Preparation intermediate products of cephalosporins. 3,534,029, 10-13-70, Cl. 260-243.
Beyers, Edward Stanley. Axial air gap alternators with movable P-M disc rotor. 3,525,005, 8-18-70, Cl. 310-156.
Beyersdorf, Hartwig, to Lloyd Dynamowerke G.m.b.H. Method of spark machining stator or rotor having lamination simulating characteristics. 3,504,153, 3-31-70, Cl. 219-69.
Beyhr, Harold Henry; and Motl, Charles Woolsey, to Procter & Gamble Company, The. Process and apparatus for the continuous reaction of organic compounds with undiluted sulfur trioxide. 3,535,339, 10-20-70, Cl. 260-327.
Beyl, Jean Joseph Alfred. Safety ski binding. 3,544,124, 12-1-70, Cl. 280-11.35
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Bezbatchenko, William, Jr., to General Tire & Rubber Company, The. Ply strip for belted radial ply pneumatic tire. 3,533,898, 10-13-70, Cl. 161-123.
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Kozmin, Mikhail Ivanovich; Mashir, Ivan Fedotovich; Bezbozhny, Vasily Semenovich; and Olomsky, Veniamin Matveevich,3,540,703.
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Beziat, Bernard, to Societe Nouvelle des Echafaudages Tubulaires Mills. Scaffolding made of prefabricated elements and methods of constructing the same. 3,506,090, 4-14-70, Cl. 182-178.
Bezner, Hubert P.; Taylor, Jefferson C., Jr.; and Woolley, Carroll A., to Esso Production Research Company. Offshore quick release-reconnect coupling. 3,488,031, 1-6-70, Cl. 251-148.
Bezouska, Vlastimil; Pivrnec, Jan; Hrdlicka, Jiri; Krasa, Evzen; and Smekal, Zdenek, to CKD Prague, oborovy podnik. Semiconductor device having pressure-held contacts. 3,518,507, 6-30-70, Cl. 317-234.
Bezzi, Ladislava Viller: *See—*
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Bezzi, Silvio: *See—*
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Bhagat, Gopal C. Solid area development in xerography employing an insulating screen in the charging step. 3,532,494, 10-6-70, Cl. 96-1.
Bhagat, Gopal C., to Xerox Corporation. Reproduction apparatus. 3,536,398, 10-27-70, Cl. 355-3.
Bhagat, Gopal C., to Xerox Corporation. Toner dispenser. 3,542,089, 11-24-70, Cl. 141-1.

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Bhasin, Madan Mohan; and Williamson, Kenneth Dale, to Union Carbide Corporation. Selective production of stilbenes and/or bibenzyls by the coupling of toluenes. 3,548,018, 12-15-70, Cl. 260-670.

Bhat, Gopal Krishna; and Tobias, Joseph B., to Electro-Slag Institute. Flux for electroslag consumable remelting of nickel base super alloys and certain iron base alloys. 3,551,137, 12-29-70, Cl. 75-10.

Bhimani, Nitin: *See—*
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Bhola, Siri R., to Conductron Corporation. Control system. 3,546,540, 12-8-70, Cl. 317-101.

Bhuta, Pravin G.; and Johnson, Robert L., to TRW Inc. Liquid vapor separator and cryogenic liquid converter. 3,492,793, 2-3-70, Cl. 55-159.

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Biaggini, Benjamin F. Apparatus for marking railroad wheels and detecting such marking. 3,502,866, 3-24-70, Cl. 246-2.

Biaggini, Benjamin F. Railroad wheel marking apparatus. 3,503,023, 3-24-70, Cl. 335-284.

Bial, Wolfgang. Adjustable D.C. voltage converter utilizing a multiway switch. 3,505,585, 4-7-70, Cl. 321-2.

Biale, Giovanni, to Union Oil Company of California. Preparation of unsaturated nitriles by ammoxidation of saturated aldehydes in the presence of a group VIII metal catalyst. 3,491,139, 1-20-70, Cl. 260-465.9

Biale, Giovanni, to Union Oil Company of California. Preparation of tertiary amines. 3,513,200, 5-19-70, Cl. 260-583.

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Bialeowski, Ludwik S. Brake assembly. 3,540,553, 11-17-70, Cl. 188-78.

Bialo, Walter. Article of luggage. 3,542,170, 11-24-70, Cl. 190-41.

Bianchetta, Donald L., to Caterpillar Tractor Company. Anti-cavitation mechanism for fluid driven systems. 3,523,490, 8-11-70, Cl. 91-420.

Bianchi, Achille; and Mostosi, Angelo, to Federal Pacific Electric Company, mesne. Current limiting circuit breakers. 3,523,261, 8-4-70, Cl. 335-16.

Bianchi, Armond C. Instruction device. 3,491,193, 1-20-70, Cl. 35-9.

Bianchi, Gianfranco; and Marucci, Luigi, to Kent-Tieghi S.p.A. Detecting differential pressure levels. 3,545,277, 12-8-70, Cl. 73-419.

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Bianchi, Nereo: *See—*
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Bianchi, Vittorio, Louis, Achille. Machine-tool. 3,499,336, 3-10-70, Cl. 74-29.

Bianco, Carlo, to Elbi S.a.s. dei Fratelli Bianco. Liquid detergent metering device. 3,517,862, 6-30-70, Cl. 222-440.

Bianco, Joseph; and Humphreys, Victor T., to American Aniline Products, Inc. Method of dyeing shaped polycarbonate resins. 3,514,246, 5-26-70, Cl. 8-4.

Bianco, Romolo Peter. Fishing lure. 3,497,986, 3-3-70, Cl. 43-42.5

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Biard, James R., to Texas Instruments, Incorporated. Low noise reactance amplifier. 3,510,674, 5-5-70, Cl. 307-88.3

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Biard, James R.; and Merryman, Jerry D., to Texas Instruments, Incorporated. Opto thermal audio amplifier. 3,534,280, 10-13-70, Cl. 330-24.

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Bibbens, William H. Interlocking toothed members. 3,537,558, 11-3-70, Cl. 192-114.

Bibeau, Alexander A.; Marcheschi, Orlando L.; and Phillips, Yorke P., to Monsanto Company. Emulsion polymerization of vinyl chloride with redox initiator system components and emulsifier prepared before monomer addition. 3,523,111, 8-4-70, Cl. 260-92.8

Biber, Albert, to Gulf Research & Development Company. Tubular uniform temperature heat source. 3,510,238, 5-5-70, Cl. 431-116.

Biber, Conrad H., to Polaroid Corporation. Photographic photometric apparatus. 3,489,499, 1-13-70, Cl. 356-225.

Biber, Conrad H., to Polaroid Corporation. Exposure control means. 3,511,142, 5-12-70, Cl. 95-10.

Biber, Conrad H.; and Pope, William R., Jr., to Polaroid Corporation. Rangefinding and focusing system for photographic cameras and the like. 3,522,764, 8-4-70, Cl. 95-44.

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Bicheylo, Frederick E.; Moors, Harold B.; and Scariano, Emanuel F., to International Paper Company. Method of application and detection of invisible ink on containers. 3,498,815, 3-3-70, Cl. 117-1.7

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Bichel, Darwin Carl, to Deere & Company. Combine platform supporting structure. 3,537,243, 11-3-70, Cl. 56-21.

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Bicik, Vladislav: *See—*
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Kaspar, Jan; and Bicik, Vladislav,3,550,915.

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Bick, Klaus; Weinreich, Wolfgang; and Harmsen, Lothar, to Paderwerk Gebr. Benteler. Method for continuous casting of metal ingots. 3,515,202, 6-2-70, Cl. 164-89.

Bickel, Frederic W.; and Peterson, Gerald H., to McDonnell Douglas Corporation, mesne. Extender oil amorphous polypropylene blend for compounding ethylene-propylene rubber. 3,536,652, 10-27-70, Cl. 260-33.6

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Bickel, Gary W.; Ferrara, John J.; and Lipshutz, Marvin L., to Honeywell Inc. Range finder with radiation sensitive means behind reflector. 3,505,528, 4-7-70, Cl. 250-216.

Bickel, Gary W.; Ferrara, John J.; and Lipshutz, Marvin L., to Honeywell Inc. Laser cavity comprising severable elements respectively carrying the laser rod and pumping source. 3,528,030, 9-8-70, Cl. 331-94.5

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Bickel, Samuel H., to Texas Instruments, Incorporated. Temperature-emissivity separation and temperature independent radiometric analyzer. 3,539,807, 11-10-70, Cl. 250-83.3

Bickerdike, Robert Lewis; and Hughes, Garyth, to National Research Development Corporation. Method of manufacturing a mould for casting metal comprising a mixture of mineral fibres and carbonisable resin. 3,519,056, 7-7-70, Cl. 164-16.

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Bickford, Hugh L.; Sawchuk, Loris G.; and Stookey, Stanley D., to Corning Glass Works. Steam treatment process to produce thermoplastic materials and hydraulic cements. 3,498,802, 3-3-70, Cl. 106-39.

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Bickham, Euland M.; and Enersen, Frank R., to Instrument Systems Corporation. Heat tunnel. 3,534,393, 10-13-70, Cl. 219-388.

Bicking, John B., to Merck & Co., Inc. Pyrimidinyl or pyrazinoyl-4-imino- dihydropyridine compounds and process. 3,535,319, 10-20-70, Cl. 260-250.

Bicking, John B.; and Cragoe, Edward J., Jr., to Merck & Co., Inc. 1-(3-Aminopyrazinoyl)-4,5,5, trisubstituted biguanide products. 3,531,484, 9-29-70, Cl. 260-250.

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Bickley, Thomas F., to LTV Aerospace Corporation. Threaded, fluid-actuated apparatus. 3,531,973, 10-6-70, Cl. 72-455.

Bickley, Thomas F., to LTV Aerospace Corporation. Force-distributing apparatus. 3,531,974, 10-6-70, Cl. 72-455.

Bickmore, John T.; and Goffe, William L., to Xerox Corporation. Image formation and development. 3,518,081, 6-30-70, Cl. 96-1.

Bickner, Clarence T. Apparatus for making ornamental bows. 3,515,317, 6-2-70, Cl. 223-46.

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Bidak, John; and Toloczko, Henry A., to General Electric Company. Vertically adjustable shelf. 3,516,369, 6-23-70, Cl. 108-138.

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Bidwell, Alexander W.; and Weinberger, Arnold, to International Business Machines Corporation. Associative memory. 3,548,386, 12-15-70, Cl. 340-173.

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Bidwell, Jan Ivan, to English Clays Lovering Pochin & Company Limited. Separation of minerals. 3,539,003, 11-10-70, Cl. 209-5.

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Bieber, Clarence G.: *See—*
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Bieber, Herman; and Lakritz, Julian, to Esso Research and Engineering Company. Rocket propellants containing coated nitronium perchlorate. 3,535,172, 10-20-70, Cl. 149-7.

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Biedermann, Friedrich, to Agfa-Gevaert Aktiengesellschaft. Light beam modulation and combination apparatus. 3,510,571, 5-5-70, Cl. 178-5.4

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Bielak, Frank A., to Hoover Ball and Bearing Company. Box spring frame assembly. 3,506,987, 4-21-70, Cl. 5-203.

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Bierman, Eric, to Northern Electric Company Limited. Party line circuit using diodes in ringing control, lockout, and revertive calling. 3,530,253, 9-22-70, Cl. 179-17.

Biermann, Hans-Georg. Manually operated riveting device. 3,491,578, 1-27-70, Cl. 72-391.

Biermann, Kurt; and Hummel, Walter, to Hilti Aktiengesellschaft. Anchoring element having oblique gripping indentations. 3,501,994, 3-24-70, Cl. 85-21.

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Bieser, Albert H.; Nunley, Leonard J.; and Sheinberg, Israel, to Recognition Equipment, Incorporated. Digital-analog optical character recognition. 3,509,533, 4-28-70, Cl. 340-146.3

Biet, Jean: *See—*
Leblond, Jean; and Biet, Jean,3,498,555.

Biffi, Ferdinando; Chesi, Erich; and Gallina, Oreste, to Bemberg S.p.A. Method and apparatus for the production of manmade fibres and manmade fibres obtained thereby. 3,488,344, 1-6-70, Cl. 260-212.

Biflex Foundations, Inc.: *See—*
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Porco, Frank, 3,543,763.

Big 'D' Chemical Company:*See—*
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Big Four Automotive Equipment Corporation: *See—*
Houston, Robert W.; Haviland, Gaylord B.; Wykoff, James L.; and Center, Donald R., 3,511,296.

Bigelmaier, Anton; Schaefer, Klaus Dieter; and Wasmund, Heiko, to Leitz, Ernst, G.m.b.H. Device for measuring the reproduction properties of optical systems. 3,489,497, 1-13-70, Cl. 356-124.

Bigelow, Floyd E., Jr. Assembly of collapsed buildings for shipping. 3,530,982, 9-29-70, Cl. 206-65.

Bigelow, James T., to Kaiser Aluminum & Chemical Corporation. Foil container. 3,516,597, 6-23-70, Cl. 229-43.

Bigelow, John E., to General Electric Company. Color display system and method employing light sensitive recording material. 3,533,339, 10-13-70, Cl. 95-12.

Bigelow, John E.; and Lemmond, Charles Q., to General Electric Company. System and method for identifying a set of graphic characters grouped together on a visible information display. 3,550,084, 12-22-70, Cl. 340-146.3

Bigelow, John Howard, to Du Pont de Nemours, E. I., and Company. Process for making silver halide emulsions. 3,505,069, 4-7-70, Cl. 96-94.

Bigelow-Sanford, Inc.: *See—*
Mueller, Helmut C., 3,523,510.
Parlin, David B.; and Mitchell, Philip B., 3,535,178.

Bigenwald, John J.; Rambo, Robert W.; and Buddendeck, Gerald A., to Xerox Corporation. Facsimile line skipping apparatus. 3,502,803, 3-24-70, Cl. 178-6.6

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Biggar, Allan M., to United States of America, Army. Reserve battery. 3,507,707, 4-21-70, Cl. 136-90.

Biggar, Frank M., Jr. Machine for folding webs of indefinite length. 3,499,643, 3-10-70, Cl. 270-79.

Biggs, Ernest R., Jr.; and Busenburg, George D. Protective shoulder pad. 3,504,377, 4-7-70, Cl. 2-2.

Biggs, John A., to Contex, Inc. Coaxial switch assembly. 3,495,060, 2-10-70, Cl. 200-153.

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Biggs, William B., to Dowty Rotol Limited. Aircraft retractable undercarriages. 3,514,057, 5-26-70, Cl. 244-102.

Bigham, James E.; and Crider, Harold E., to Monsanto Company. Ionization latch indicator and housing receptacle therefor. 3,501,666, 3-17-70, Cl. 313-210.

Bigler, Bernhard; and Louvet-Dronet, Jules L., to Babcock & Wilcox Company, The. Tube guide apparatus. 3,527,261, 9-8-70, Cl. 122-510.

Bigley, Arthur C., Jr.; and Kramlick, Emil S., to Anaconda Company, The. Copper smelting method. 3,516,820, 6-23-70, Cl. 75-74.

Biglin, Duane O.; and Grothjan, Jerome R., to Owens-Illinois, Inc. Apparatus for forming molded plastic articles. 3,488,805, 1-13-70, Cl. 18-5.

Bignert, Folke. Button with fastener. 3,531,833, 10-6-70, Cl. 24-103.

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Bigos, Joseph; and Perfetti, Bruno M., to United States Steel Corporation. Method of applying non-permanent decorative coating to high-strength, low alloy steel. 3,502,512, 3-24-70, Cl. 148-6.35

Bigot, Johan A.; van Mourik, Johannes; and van Beveren, Johannes, to Stamicarbon N.V. Ionogenic polymerization of lactams. 3,492,275, 1-27-70, Cl. 260-78.

Bigowsky, John M.; and Riley, Joseph J., to Taylor-Winfield Corporation, The. Transistorized sequence timer for resistance welding machines. 3,493,715, 2-3-70, Cl. 219-114.

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Bijleveld, Willem Jan; and van der Toorn, Adrianus Johannes, to De Staat der Nederlanden, Ten Deze Vertegenwoodigd Door de Directeur-General der Posterijen, Telegrafie en Telefonie. Process and apparatus for producing and reading arabic numbers on a record sheet. 3,527,927, 9-8-70, Cl. 235-61.11

Biklen, Donald W., to Adamson United Company. Apparatus for disassembly of cured laminate books. 3,496,051, 2-17-70, Cl. 156-584.

Biland, Hans Rudolf: *See—*
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Biland, Hans Rudolf, to Ciba Limited. Oxalic acid diamide stabilizers for polyolefins. 3,543,306, 11-24-70, Cl. 260-45.8

Biland, Hans Rudolf; Duennenberger, Max; and Luethi, Christian, to Ciba Limited. Use of oxalic acid diarylamides as light filters. 3,542,573, 11-24-70, Cl. 106-186.

Biland, Hans Rudolf; Eschle, Karl; Luethi, Christian; and Duennenberger, Max, to Ciba Limited. Triazine derivatives. 3,530,127, 9-22-70, Cl. 260-248.
Luethi, Christian; Duennenberger, Max; and Biland, Hans Rudolf,3,529,982.

Bilbrey, Robert A., to Crane Packing Company. Apparatus for wrapping tape around threaded articles. 3,508,998, 4-28-70, Cl. 156-457.

Bilbrough, Jack, to Rank Organisation Limited, The. Microwave apparatus for the processing or measurement of sheet materials. 3,488,858, 1-13-70, Cl. 34-1.

Bilbrough, Jack, to Rank Organisation Limited, The, mesne. Weighing of materials with microwave testing of moisture content. 3,499,499, 3-10-70, Cl. 177-64.

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Bilco, Arthur, to Raymond Corporation, The. Manual control detent apparatus. 3,550,471, 12-29-70, Cl. 74-529.

Bildat, Benno, to Bosch, Robert, G.m.b.H. Means for the synchronized shifting of transmissions in motor vehicles. 3,545,307, 12-8-70, Cl. 74-858.

Bildat, Benno: *See—*
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Biletch, Harry A.; Nyilas, Emery; and Pinter, Imre James L. Metal bis-diarylpyrazolines. 3,502,689, 3-24-70, Cl. 260-299.

Biley, Richard E. Method of processing grain sorghum. 3,498,796, 3-3-70, Cl. 99-80.

Bilinski, Donald J.; and Macor, Goerge S., to Singer-General Precision, Inc. Universal joint flexure hinge. 3,527,062, 9-8-70, Cl. 64-15.

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Bille, Heinz: *See—*
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Biller, Hans K. Gem position fixing tool. 3,548,471, 12-22-70, Cl. 29-10.

Billerbeck, Fred W.; Hing, Francisco S.; and Kelly, Vincent J., to Gerber Products Company. Method for preparing a fruit cereal product. 3,506,447, 4-14-70, Cl. 99-83.

Billerbeck, Wilfred J., Jr.; and Owens, James R., to Communications Satellite Corporation. Deployable flexible solar array. 3,544,041, 12-1-70, Cl. 244-1.

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Billeruds Aktiebolag: *See—*
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Billes, Claude, to Societe Francaise du Pneu Englebert Margny-les-Compiegne. Segmental tire mold and method of molding an asymmetric tire. 3,505,447, 4-7-70, Cl. 264-293.

Billetdeaux, Adrian C.; Fertig, Glenn H.; and Freilino, Ray S., to United States of America, Army, mesne. Fluid analysis by infrared absorption. 3,539,804, 11-10-70, Cl. 250-43.5

Billeter, Henry R., to Sloan Valve Company. Brake cylinder release valve. 3,502,374, 3-24-70, Cl. 303-69.

Billeter, Henry R., to Sloan Valve Company. Retainer valve. 3,526,248, 9-1-70, Cl. 137-599.2

Billeter, Henry R., to Sloan Valve Company. Institutional shower head. 3,533,555, 10-13-70, Cl. 239-108.

Billett, Ronald J., to FMC Corporation. Web material interfolding and cutting machine. 3,536,317, 10-27-70, Cl. 270-40.

Billett, Stanley J., to American Smelting and Refining Company. Stripping of sheet metal electrodeposits from starting sheet blanks. 3,530,047, 9-22-70, Cl. 204-12.

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Billi, Giorgio. Dial synchronizer for circular knitting machines. 3,513,667, 5-26-70, Cl. 66-95.

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Knothe, Erick; Billin, Eckhard; and Meclcher, Franz-Josef,3,547,213.

Billingham, Antony Cecil. Machines for making frozen confections. 3,495,551, 2-17-70, Cl. 107-8.

Billings, Jack T.; and Witherow, Lawrence R., to Eastman Kodak Company. Web support roller surface. 3,493,161, 2-3-70, Cl. 226-190.

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Billings, William G., to Phillips Petroleum Company. Hydrocarbon steam reforming. 3,506,418, 4-14-70, Cl. 48-214.

Billings, William G.; and Nelson, William T., to Phillips Petroleum Company. Hydrocarbon reforming. 3,522,024, 7-28-70, Cl. 48-214.

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Billingsley, John George Selby; Colsen, Jack Edgar; Pierce, Edward Stanley; Ramsey, Harold Eugene; and Stephen, Paul Glenn, to Du Pont de Nemours E. I., and Company. Method and apparatus for packaging groups of articles in a tubular sleeve. 3,513,620, 5-26-70, Cl. 53-26.

Billingsley, Littleton C. Educational device. 3,541,707, 11-24-70, Cl. 35-31.

Billingsley, Raymond L., to Westinghouse Electric Corporation. Ground detection circuitry for computer input contact interfacing system. 3,519,804, 7-7-70, Cl. 235-153.

Billingsley, Robert J., to United States of America, Air Force. Explosive signal and training device. 3,540,136, 11-17-70, Cl. 35-25.

Billingsley, Robert L.; and Porter, Virgle E., to Amtron, Inc. Telephone signalling circuit. 3,492,439, 1-27-70, Cl. 179-84.

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Bills, Alan M.; Falkehag, Sten I.; and Kleppe, Peder J., to Westvaco Corporation. Method for stabilizing polysaccharides against alkaline attack. 3,532,596, 10-6-70, Cl. 162-70.

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Billue, Robert F.: *See—*
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Billy, Jean-Marc, to Ogilvie Flour Mills Company Limited, The. Starch adhesives and their preparation. 3,524,750, 8-18-70, Cl. 106-213.

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Bilon, Marcel, to Boxal Beaurepaire, S.A. Device for closing a box. 3,537,610, 11-3-70, Cl. 220-27.

Bilotti, Alberto, to Sprague Electric Company. Synchronous demodulator for color television signals. 3,513,256, 5-19-70, Cl. 178-5.4

Bilotti, Alberto, to Sprague Electric Company. Direct coupled limiter-discriminator circuit. 3,548,326, 12-15-70, Cl. 329-1.

Bilotti, Anthony George. Educational dart game. 3,504,913, 4-7-70, Cl. 273-95.

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Bilz, Helfried; Voigt, Jurgen; Gobel, Wolfgang; Hahn, Christian; and Emmrich, Rainer, to VEB Reglerwerk Dresden. Pressure actuated indicator device for binary pressure signals. 3,530,821, 9-29-70, Cl. 116-70.

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Bimba, Charles W. Fluid power motor with non-rotating piston. 3,518,920, 7-7-70, Cl. 92-168.

Bimber, Russell M., to Diamond Shamrock Corporation. 1,2,2,2-Tetrachloroethyl esters. 3,522,291, 7-28-70, Cl. 260-475.

Bimber, Russell M., to Diamond Shamrock Corporation. Use of 2,6-dicyanotrichloro- pyridine as an industrial biocide. 3,549,762, 12-22-70, Cl. 424-263.

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Binder, Charles R., to General Motors Corporation. Refrigeration apparatus with components by chlorinated polyethylene hoses. 3,528,260, 9t15-70, Cl. 62-498.

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Binder, Richard; and Fadler, Kurt, to Fichtel & Sachs Aktiengesellschaft. Clutch assembly for an automotive vehicle. 3,489,256, 1-13-70, Cl. 192-98.

Binder, Robert; and Hausinger, Otto, to Porsche, Dr.-Ing. H.c.F., K.G., Firma. Housing interconnections for vehicle drive. 3,494,225, 2-10-70, Cl. 74-700.

Binder, Rolf; Lamparter, Hansruedi; and Wildbolz, Rudolf, to Rieter Machine Works Ltd. Apparatus and Method for regulating the draft of staple fiber sliver in a drafting system. 3,488,811, 1-13-70, Cl. 19-240.

Bindernagel, Ali, to Kocks, Friedrich. Rolling mills. 3,535,904, 10-27-70, Cl. 72-199.

Bindler, Jakob; and Model, Ernst, to Geigy Chemical Corporation. Antifungal and antibacterial composition and method containing chloroacetylated hydroxydiphenyls. 3,549,768, 12-22-70, Cl. 424-331.

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Bing, Herbert A., to Polaroid Corporation. Photographic exposure control apparatus. 3,518,926, 7-7-70, Cl. 95-10.

Binger, Wynn S., to Construction Materials, Inc. Pavement cutting apparatus. 3,547,492, 12-15-70, Cl. 299-39.

Bingham, Kenneth Charles Arthur, to International Computers and Tabulators Limited. Method of making electrical connections between components. 3,525,617, 8-25-70, Cl. 96-36.2

Bingham, Robert E., to General Tire & Rubber Company, The. Aqueous suspension polymerization process and systems for preparation of blotter-type vinyl chloride resins. 3,523,986, 8-11-70, Cl. 260-928.

Bingham, Samuel, Company: *See—*
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Bingham, Spencer Lewis. Tool-holding and aligning device. 3,544,117, 12-1-70, Cl. 279-6.

Bingham, Wallace Karl; Olson, Leonard L.; and Palmquist, Philip V., to Minnesota Mining and Manufacturing Company. Glare-free coating compositions of elastomeric particles in an elastomeric film-former. 3,527,729, 9-8-70, Cl. 260-37.

Bingham, Wallace Karl; and Vanstrum, Robert C., to Minnesota Mining and Manufacturing Company. Highly flexible reflex reflecting constructions. 3,551,025, 12-29-70, Cl. 350-105.

Bingley, Donald W., to AMP Incorporated. Inverter-converter with regulation of AC and DC outputs. 3,551,777, 12-29-70, Cl. 321-2.

Bingley, George W., to Massey-Ferguson Inc. Clutch released by simultaneous engagement of separate brakes. 3,498,427, 3-3-70, Cl. 192-13.

Bingley, George W.; and Khan, Nazir M., to Massey-Ferguson Inc. Movable seat assembly. 3,542,424, 11-24-70, Cl. 297-349.

Bingman, William E., Jr., to Shell Oil Company. Pressurized well drilling system. 3,500,943, 3-17-70, Cl. 175-66.

Binhma, David, to Fairchild Camera and Instrument Corporation. Semiconductor circuit for high gain amplification or FM quadrature detection. 3,508,161, 4-21-70, Cl. 329-103.

Bininda, Norbert: *See—*
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Bininda, Norbert, to Siemens Aktiengesellschaft. Load averaging arrangement for telephone switching systems. 3,527,895, 9-8-70, Cl. 179-18.

Bininda, Norbert; and Hofstetter, Helga, to Siemens Aktiengesellschaft. Switching network with all connection on the input side. 3,491,211, 1-20-70, Cl. 179-18.

Binkerd, Evan F.; and Rendek, Robert B., to Armour and Company. Process for cooking shingled bacon slices. 3,532,511, 10-6-70, Cl. 99-107.

Binkley, Bill W.; Lavallee, Donald C.; and Spagnoli, Carl C., said Binkley assor. to RCA Corporation. Timing system for readout of stored data. 3,542,286, 11-24-70, Cl. 235-61.11

Binkley, Howard J. R., to Federal-Mogul Corporation, mesne. Cutoff wheel. 3,487,589, 1-6-70, Cl. 51-206.

Binks, Albert Edward; and Sharples, Allan, to Ilford Limited. High-impedance photosensitive devices comprising electrodes of polyolefin oxide. 3,513,317, 5-19-70, Cl. 250-211.

Binks Manufacturing Company: *See—*
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Binks, Melvin J. Flaw detector for discontinuous sheet lengths. 3,528,094, 9-8-70, Cl. 250-219.

Binks, Melvin J. Radiation sensitive machine for zonal scan flaw detection. 3,541,340, 11-17-70, Cl. 250-219.

Binks Research and Development: *See—*
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Binks Research and Development Corporation: *See—*
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Binks-Bullows Limited: *See—*
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Binner, Tihamer S. Infinitely variable ratio rotary drive. 3,490,299, 1-20-70, Cl. 74-63.

Binnings, Gerald F., to Aerojet-General Corporation. Liquid dispenser. 3,501,057, 3-17-70, Cl. 222-132.

Binnis, Kenneth, to British Titan Products Company Limited. Corrosion-inhibiting titanium dioxide pigments. 3,514,304, 5-26-70, Cl. 106-300.

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Binnix, William B.; and Binnix, Donald B. Time-metered movable throat drawoff. 3,539,001, 11-10-70, Cl. 209-475.

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Binon, Fernand; and Tondeur, Rene, to Laboratoires Labaz, mesne. Oxyalkanoic benzofuran derivatives. 3,520,906, 7-21-70, Cl. 260-346.2

Binsack, Rudolf; Bottenbruch, Ludwig; and Schnell, Hermann, to Farbenfabriken Bayer Aktiengesellschaft. High molecular weight polybenz-1,3-oxazine-2,4-diones. 3,541,048, 11-17-70, Cl. 260-47.

Binsley, Glen E., to Diamond Crystal Salt Company. Anticaking additive for particulated sodium chloride containing an iron cyanide complex and a C_2-C_6 monohydric or polyhydric alcohol. 3,490,744, 1-20-70, Cl. 252-383.

Binsley, Glen E., to Diamond Crystal Salt Company. Composition of sodium chloride, potassium chloride, or mixtures thereof, containing anti-caking additive of iron cyanide complex and alcohol. 3,527,560, 9-8-70, Cl. 23-89.

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Binzoni, Emilio M., to Pitney-Bowes Inc. Tiltable print plate hopper for address printing machines. 3,492,941, 2-3-70, Cl. 101-47.

Binzoni, Emilio M. Printing plate stacker. 3,528,565, 9-15-70, Cl. 214-6.

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Bio-Medical Systems, Inc.: *See—*
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Bittner, Donald L.; and Mendelsohn, Monroe, 3,512,648.
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Bio-Research Consultants, Inc.: *See—*
Morrissey, Colin A., 3,528,435.

Bio-Science Industries, Inc.: *See—*
Santagata, Frank; and Braverman, George L., 3,494,330.

Bioletti, Rudy; and Krehely, Richard M., to Bendix Corporation, The. Dual redundant electrohydraulic servo system. 3,494,256, 2-10-70, Cl. 91-170.

Biomedical Engineering Associates, Inc.: *See—*
Birtwell, William C., 3,547,126.

Bionic Instruments, Inc.: *See—*
Benjamin, Joel Melvern, Jr.; Bolgiano, Duane Ridgely; Meeks, Edwin Donnell, Jr.; and Benham, Thomas A., 3,546,467.

Biorex Laboratories Limited: *See—*
Turner, John Cameron, 3,511,871.

Biorseth, Elwin J., to Mead Corporation, The. Coating apparatus and method. 3,496,012, 2-17-70, Cl. 117-111.

Biot, Bernard: *See—*
Soulez-Lariviere, Jean; and Biot, Bernard,3,504,991.

Biotest-Serum-Institut GmbH: *See—*
Heinz, Robert, 3,526,340.

Biotronex Laboratory, Incorporated: *See—*
Schuette, William H., 3,529,591.

Birath, Bjorn Erland Bengt, to AB Bonnierforetagen. Conveyor for newspapers or similar articles. 3,538,818, 11-10-70, Cl. 93-93.

Birbanescu, Adrian, to Comitetul de Stat Pentru Cultura si Arta. Device for indicating the position of the platform of cranes with articulated booms, especially camera cranes. 3,547,072, 12-15-70, Cl. 116-124.

Birbanescu, Adrian; and Rusu, Tiberiu. Hydraulic filming or television camera crane. 3,528,524, 9-15-70, Cl. 182-63.

Birch, Alexander A., Jr. Portable membrane blood oxygenator. 3,506,406, 4-14-70, Cl. 23-258.5

Birch, Brian L.: *See—*
Sovia, Cedric C.; and Birch, Brian L.,3,545,697.

Birch, Edin L.: *See—*
Adams, Samuel F.; Guerin, Edmond H., Jr.; and Birch, Edin L.,3,518,823.

Birch, Joseph J., to Barnes & Tucker Company. Process of treating acid mine water. 3,516,931, 6-23-70, Cl. 210-46.

Birch, Lawrence, to Standard Toykraft, Inc. Paper doll having combined ornament and fastening device. 3,528,079, 9-8-70, Cl. 46-157.

Birch, Stanley William, to Rolls-Royce Limited. Air intakes for gas turbine jet propulsion engines. 3,500,842, 3-17-70, Cl. 137-15.1

Birch, William B.: *See—*
Karr, Anthony M., 3,517,261.

Birch, William B. Ornamental light fixture. 3,531,636, 9-29-70, Cl. 240-10.1

Birchall, James Derek, to Imperial Chemical Industries Limited. Fire-extinguishing compositions comprising the reaction products of urea and a bicarbonate, carbonate or hydroxide of sodium or potassium. 3,536,620, 10-27-70, Cl. 252-7.

Birchall, Thomas D., to Hume, G. W., Company. Can palletizer. 3,522,890, 8-4-70, Cl. 214-6.

Birchall, Thomas: *See—*
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Birchall, William R.; and Broering, Leo H., to National Distillers and Chemical Corporation. Preparation of alfin catalyst. 3,503,897, 3-31-70, Cl. 252-429.

Birchill, Theodore J.; and Groce, Thomas E., to Kaiser Aluminum & Chemical Corporation. Casting molten metal. 3,494,410, 2-10-70, Cl. 164-82.

Birck, Michael J., to Superior Continental Corporation, mesne. Subscriber's two-wire line including carrier telephone communication system. 3,491,207, 1-20-70, Cl. 179-15.

Bird, Albert Eric: *See—*
Austin, Kenneth William Bertram; and Bird, Albert Eric,3,505,187.

Bird, Arnett L.: *See—*
Amos, James L.; Bird, Arnett L.; and Snyder, Robert P.,3,520,027.

Bird, Edmund John, to Lucas, Joseph, (Industries) Limited. Solenoids for use in engine starting mechanism. 3,509,506, 4-28-70, Cl. 335-274.

Bird Electronic Corporation: *See—*
Minich, Sam, 3,506,935.

Bird, Elry C.: *See—*
Gillis, Thomas S., Jr.; Pennington, John W.; and Bird, Elry C.,3,521,853.

Bird, Forrest M. Cryogenic air compressor with air dehumidifying means. 3,494,138, 2-10-70, Cl. 62-151.

Bird, Forrest M.; and Pohndorf, Henry L. Mechanical volume limiting ventilator. 3,530,856, 9-29-70, Cl. 128-145.6

Bird, Forrest M.; and Pohndorf, Henry L. Ventilating apparatus. 3,530,890, 9-29-70, Cl. 137-624.14

Bird, Garnet W.: *See—*
Cross, Douglas A.; and Bird, Garnet W.,3,498,729.

Bird, George R.; and Parrish, Maxfield, Jr., to Polaroid Corporation. Light polarizer. 3,536,373, 10-27-70, Cl. 350-147.

Bird, George R.; and Parrish Maxfield, Jr. Apparatus for drawing fine filaments with tension sensing means. 3,498,771, 3-3-70, Cl. 65-12.

Bird, Jack Raymond; and Bryant, Rodney Trenchard, to Imperial Metal Industries (KYNOCH) Limited, and Rolls-Royce Limited. Blade for use in a fluid flow machine. 3,549,273, 12-22-70, Cl. 416-241.

Bird, James L., to Neway Equipment Company. Automotive vehicle suspension structure. 3,547,215, 12-15-70, Cl. 180-71.

Bird, Joseph W. Movie titler, clap-board style. 3,528,731, 9-15-70, Cl. 352-90.

Bird Machine Company: *See—*
Amero, Clifford Leonard, 3,532,264.
Baker, Donald B., 3,493,463.
Garner, Edward Vernon, 3,491,794.
Kleimola, William, 3,526,017.
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Roos, John Treymann, 3,515,375.
Roos, John Treymann, 3,539,158.

Bird, Richard E.: *See—*
Baumann, Arthur N.; and Bird, Richard E.,3,551,332.
Shearon, George B.; Rubin, Gerald J.; and Bird, Richard E.,3,528,771.

Bird, Richard M.; and Tu, Ju C., to General Precision Systems Inc. Multiple match resolving network. 3,544,905, 12-1-70, Cl. 328-92.

Bird Tie Pads, Incorporated: *See—*
Hickey, John Edward, 3,514,035.

Bird, Walter John. Variable-geometry aircraft. 3,510,088, 5-5-70, Cl. 244-46.

Bird, Walter W., to Birdair Structures, Inc. Taped tension web-skin joint for air inflated structures. 3,490,184, 1-20-70, Cl. 52-2.

Bird, Walter W., to Birdair Structure, Inc. Weather-tight enclosure system. 3,496,686, 2-24-70, Cl. 52-2.

Birdair Structure, Inc.: *See—*
Bird, Walter W., 3,496,686.

Birdair Structures, Inc.: *See—*
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Birdsall, Fred R., to Bendix Corporation, The. Electromagnetic clutch. 3,491,866, 1-27-70, Cl. 192-84.

Birdsong, Fred: *See—*
Norcross, Gilbert F.; Birdsong, Fred; Wimbs, Martin L.; and Beers, Homer B.,3,523,473.

Birdwell, Nelson, to Custom Electric Mfg. & Dist. Co., Inc. Electric baseboard heater. 3,538,307, 11-3-70, Cl. 219-341.

Biretta, Vitti Julian; Lemon, Elmer George, Jr.; and Vater, Eugene John, to Webb, Jervis B., Company. Controlling carbide surfaces. 3,527,624, 9-8-70, Cl. 148-14.

Birge, Richard P.: *See—*
Cordle, Paul E.; and Birge, Richard P.,3,498,224.

Birge, William T., to Kelsey-Hayes Company. Disk brake embodying caliper positioner. 3,500,966, 3-17-70, Cl. 188-73.

Birge, William T.; and Ayers, David T., to Kelsey-Hayes Company. Skid control system. 3,549,210, 12-22-70, Cl. 303-21.

Birgmayer, Josef; and Husarik, Karl, to Vereinigte Osterreichische Eisen- und Stahlwerke Aktiengesellschaft. Combination of lathe and tread-cutting attachment. 3,526,161, 9-1-70, Cl. 82-5.

Biri, Henri, to Les Freres Lissac Opticiens S.A. Scleral contact lenses. 3,495,899, 2-17-70, Cl. 351-160.

Biri, Janos, to Kozponti Fizikai Kutato Intezet. Sampling amplifier having facilities for amplitude-to-time conversion. 3,526,785, 9-1-70, Cl. 307-235.

Biritz, Laszlo F.; and Gilbert, Everett E., to Allied Chemical Corporation. Sulfation of alcohols with a solution of a complex of SO_3 with dimethylformamide. 3,544,555, 12-1-70, Cl. 260-215.

Birkeland, Stephen P., to Minnesota Mining and Manufacturing Company. Method for retrieving prerecorded information from a recording medium with an unmodulated electron beam. 3,505,654, 4-7-70, Cl. 340-173.

Birkemeier, George R.; and Scott, Hollis C. Timber Structures, Inc. Dome structures. 3,540,174, 11-17-70, Cl. 52-80.

Birkenmeyer, Robert D., to Upjohn Company, The. Lincomycin derivatives and process for producing the same. 3,549,615, 12-22-70, Cl. 260-210.

Birkenmeyer, Robert D.; and Kagan, Fred, to Upjohn Company, The. 7-Halo-7-deoxylincomycins and process for preparing the same. 3,496,163, 2-17-70, Cl. 260-210.

Birkenmeyer, Robert D.; and Kagan, Fred, to Upjohn Company, The. 7-Halo-7-deoxythiolincosaminides and process for preparing the same. 3,502,648, 3-24-70, Cl. 260-210.

Birkenmeyer, Robert D.; and Kagan, Fred, to Upjohn Company, The. Sulfoxides of 7-halo-7-deoxylincomycins and process. 3,513,155, 5-19-70, Cl. 260-210.

Birkenmeyer, Robert D.; and Kagan, Fred, to Upjohn Company, The. 7-Halo-lincomycin composition and process of treatment. 3,539,689, 11-10-70, Cl. 424-274.

Birkenstock, Udo: *See—*
Wilke, Gunther; Bogdanovic, Borislav; Birkenstock, Udo; and Pauling, Horst,3,511,863.

Birkhaug, Frederic J.: *See—*
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Birkhead, Frank G., to Hewitt-Robins Incorporated. Automatic releasing drive carriage for power and free conveyor system. 3,541,967, 11-24-70, Cl. 104-172.

Birkigt, Louis, to Brevets Aero-Mecaniques S.A. Ammunition having a subcalibre shell comprising a front cap and means for destroying this cap in flight. 3,498,222, 3-3-70, Cl. 102-52.

Birkner, Helmut, to Chemische Werke Huls Aktiengesellschaft. Stable solid polymerizable lactam-catalyst-cocatalyst mixture and methods of preparing the same. 3,498,956, 3-3-70, Cl. 260-78.

Birma Products Corporation: *See—*
March, John J., 3,537,485.
March, John J., 3,539,137.

Birman, George, to Barogenics, Inc. Equipment adapted for hydrostatic extrusion and other uses. 3,491,565, 1-27-70, Cl. 72-60.

Birmingham, Henry P., to United States of America, Navy. Intensity-sequenced optical guidance system for vehicles. 3,509,524, 4-28-70, Cl. 340-25.

Birmingham Small Arms Company Limited, The: *See—*
Gosney, Warner Barry, 3,545,280.
Jordison, Fred, 3,541,862.
Moore, Albert, 3,507,394.

Birn, Serge A., Inc.: *See—*
Barnes, Donald W., 3,541,701.
Birnbacher, Walter, to Oesterreichisch-Alpine Montangesellschaft. Crossing frogs for railway points. 3,518,423, 6-30-70, Cl. 246-468.
Birnbaum, Hermann. Emulsifier for use in baking and method of preparing the same. 3,502,482, 3-24-70, Cl. 99-118.
Birnbaum, Morris M.; and Salomon, Phil M., to Hycon Mfg. Company. Object locating system using image centroid measurement. 3,513,318, 5-19-70, Cl. 250-214.
Birnbaum, Oleg Ernstovich: *See—*
Pavlov, Vladimir Vasilievich; Ivliev, Valery Alexandrovich; Zlobin, Jury Petrovich; Birnbaum, Oleg Ernstovich; and Trunov, Oleg Konstantinovich,3,543,577.
Birnstingl, David Wildon, to Mawdsley's Limited. Detector heads. 3,504,541, 4-7-70, Cl. 73-194.
Biros, Roger W., to Teletype Corporation. In-circuit reverse leakage testing of diodes driving associated amplifiers by monitoring changes in amplifier outputs. 3,534,262, 10-13-70, Cl. 324-158.
Birrell, Norman D.: *See—*
Flipse, John E.; Donaldson, Robert M.; Stevens, John L., Jr.; Mero, John L.; Deal, Joseph D., Jr.; Birrell, Norman D.; Oresko, Nicholas E.; Spencer, Luther E.; Graham, Alfred E.; Jones, Archer L.; Hirshman, Ira L.; Todd, Frederick S.; and Himes, William A.,3,522,670.
Birschkus, Bernhard, to Vereinigte Osterreichische Eisen- und Stahlwerke Aktiengesellschaft. Upcoiler for strip. 3,531,058, 9-29-70, Cl. 242-78.1
Birstein, Seymour J.: *See—*
Anderson, Charles E.; Birstein, Seymour J.; and Silverman, Bernard A.,3,517,505.
Anderson, Charles E.; Birstein, Seymour J.; and Silverman, Bernard A.,3,517,512.
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Finch, Horace T.; and Emmons, Donald L., 3,517,662.
Birtwell, William C., to Biomedical Engineering Associates, Inc. Catheter. 3,547,126, 12-15-70, Cl. 128-349.
Birum, Gail H., to Monsanto Company. Hydroxyalkyl phosphorus compounds and process for making same. 3,505,431, 4-7-70, Cl. 260-932.
Birum, Gail H.; and Matthews, Clifford N., to Monsanto Company. 4,4-Bis(trifluoromethyl)-2,2,2-triphenyl-3- (triphenylphosphoranylidiene)-1,2-oxaphosphetane. 3,488,408, 1-6-70, Cl. 260-927.
Birum, Herbert L., Jr. Method and apparatus for mounting wallboard. 3,501,883, 3-24-70, Cl. 52-241.
Birum, Herbert L., Jr. Exterior wall accessories. 3,509,674, 5-5-70, Cl. 52-302.
Birwelco Limited: *See—*
Harris, Peter John; Billington, Michael John; and Wingrove, Richard John, 3,519,068.
Bisbell Engineering Limited: *See—*
Bishop, Ronald, 3,500,283.
Bisberg, Arthur, to EG & G, Inc., mesne. Saturation hygrometer. 3,540,826, 11-17-70, Cl. 356-102.
Biscayne Manufacturing Corporation: *See—*
Newman, George, 3,506,294.
Bischof, Alan E.: *See—*
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Hansen, Gerald D.; Persinski, Leonard J.; Bischof, Alan; and Padden, John J.,3,542,044.
Bischoff Chemical Corporation: *See—*
Nussbaum, Frank J., 3,543,348.
Voelker, Walter D., 3,512,216.
Bischoff, Friedrich: *See—*
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Bischoff, Harold W.; and Cannon, James H. Film comparator. 3,492,486, 1-27-70, Cl. 250-204.
Bischoff, John F, Window frame construction. 3,520,097, 7-14-70, Cl. 52-456.
Bischoff, Leo E., to General Motors Corporation. Pulse control wiper. 3,487,492, 1-6-70, Cl. 15-250.02
Bischoff, Vincent E., to Dick, A. B., Company. Analog switching device. 3,551,703, 12-29-70, Cl. 307-254.
Biscoff, William S., to General Electric Company. Quartz-to-metal foil pinch seal. 3,548,245, 12-15-70, Cl. 313-331.
Biscone, Frank: *See—*
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Bish, Raymond H.; and Johnson, Lawrence A., to General Motors Corporation. Method of coating a permeable sand core body. 3,520,711, 7-14-70, Cl. 117-5.2
Bishaf, Morris; and Messineo, Leonard E., to Stebco Industries, Inc. Strain separable inflation gauge for inflatable articles. 3,505,695, 4-14-70, Cl. 5-348.
Bishof, Chester A.: *See—*
Silverstein, Ronald M.; Bishof, Chester A.; and Matey, Joseph T.,3,510,436.
Bishop, Alan W.; and Skinner, Angus E., to Wykeham Farrance Engineering Limited. Geological sample testing apparatus. 3,505,860, 4-14-70, Cl. 73-94.
Bishop, Alfred E., to RCA Corporation. Electron tube multicolor dual presistence screen comprising phosphor-coated phosphor particles. 3,522,463, 8-4-70, Cl. 313-92.
Bishop, Basil T. G., to Rolls-Royce Limited. Filter cleaning means. 3,516,547, 6-23-70, Cl. 210-304.
Bishop, Bruce E., to United States of America, Navy. Sector attenuation scanning device for automatic tracking antenna systems. 3,500,415, 3-10-70, Cl. 343-118.
Bishop, Charles Edward. Fencing. 3,502,303, 3-24-70, Cl. 256-48.
Bishop, Derek Charles: *See—*
Cavalla, John Frederick; and Bishop, Derek Charles,3,491,087.
Bishop, Earl L., to Goodrich, B. F., Company, The, mesne. Tire testing apparatus and method. 3,543,576, 12-1-70, Cl. 73-146.
Bishop, Earl L.; and Sharp, Lester T., to Eagle-Picher Industries, Inc., mesne. Multiple ply stock servicer. 3,551,252, 12-29-70, Cl. 156-406.
Bishop, Eileen, 50% to Phinney, Ellen. Process of applying crystals to artificial flowers. 3,520,712, 7-14-70, Cl. 117-26.
Bishop Freeman Co.: *See—*
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Bishop, Gary E.; and Bramley, Winlaw B., to General Motors Corporation. Method of manufacturing a friction band. 3,531,849, 10-6-70, Cl. 29-428.
Bishop, Geoffrey Stanley: *See—*
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Bishop, Graham P., to Elliott Brothers (London) Limited. Electric connections. 3,529,278, 9-15-70, Cl. 339-130.
Bishop, Harlow, to American Cyanamid Company. Fermentative biosynthesis of tetracycline antibiotics. 3,516,909, 6-23-70, Cl. 195-102.
Bishop, Irving N.; Choma, Michael A.; Hideg, Laszlo; Mosher, Richard G.; and Simko, Aladar O., to Ford Motor Company. Fuel injector. 3,542,293, 11-24-70, Cl. 239-95.
Bishop, John Richard: *See—*
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Bishop, John W. H., to Bishop Spools, Inc. Method of attaching pliant web to thermoplastic base. 3,514,350, 5-26-70, Cl. 156-73.
Bishop, John W.: *See—*
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Bishop, John W., to United States of America, Interior. Process and apparatus for reduction of unburned combustible in fly ash. 3,508,506, 4-28-70, Cl. 110-165.
Bishop, Joseph E., to General Electric Company. Digital coding scheme providing indicium at cell boundaries under prescribed circumstances to facilitate self-clocking. 3,508,228, 4-21-70, Cl. 340-174.1
Bishop, Kenneth J.; and Smith, Edgar B. Squeeze bulb exercising device for the hands and like. 3,542,363, 11-24-70, Cl. 272-68.
Bishop, Kenneth M. Swimming pool skimming gutter. 3,546,719, 12-15-70, Cl. 4-172.17
Bishop, Leonard J., to American Chain & Cable Company, Inc., mesne. Accumulating tow truck. 3,495,547, 2-17-70, Cl. 104-172.
Bishop, Leonard J., to American Chain & Cable Company, mesne. Tow truck conveyor system. 3,503,335, 3-31-70, Cl. 104-88.
Bishop, Malcolm John, to Farranti Limited. Multiple-stage high-voltage impulse generators having a series array of spark gaps in each stage. 3,501,646, 3-17-70, Cl. 307-110.
Bishop, Michael L., to Wagner Electric Corporation. Vehicle dual brake condition responsive indicating system. 3,500,311, 3-10-70, Cl. 340-52.
Bishop, Nigel Douglas: *See—*
Baranyovits, Francis Leslie Charles; Ghosh, Ranajit; Bishop, Nigel Douglas; Freeman, Peter Frank Hilary; and Jones, William Glynne Moss,3,493,574.
Bishop, Otis L., to Westinghouse Electric Corporation. Microwave stripline variable attenuator having compressible, lossy dielectric material. 3,505,619, 4-7-70, Cl. 333-81.
Bishop, Peter Harold Howard; and Rogers, Kenneth Francis, to National Research Development Corporation. Heat insulating lining for electric furnaces. 3,491,192, 1-20-70, Cl. 13-20.
Bishop, Peter Harold Howard; and Rogers, Kenneth Francis. Apparatus and method for determining thermal conductivity. 3,533,274, 10-13-70, Cl. 73-15.
Bishop, Ralph. Levelling system for trailers and the like. 3,523,698, 8-11-70, Cl. 280-150.5
Bishop, Roger Ivan: *See—*
Winstone, Ronald Francis; Wilkinson, Derek; Scarr, William Theodore; Dymock, Colin Bartley; and Bishop, Roger Ivan,3,521,732.
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Bishop, Ronald, to Bisbell Engineering Limited. Electric welding. 3,500,283, 3-10-70, Cl. 339-12.
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Bishop, Thomas Desmond, to Deritend Engineering Company Limited, The. Apparatus for stripping waste from cardboard and like blanks. 3,524,364, 8-18-70, Cl. 83-103.
Bishop, Troy R. System for producing optical illusion of three-dimensional light beam. 3,536,378, 10-27-70, Cl. 350-167.
Bishop, William A., Sr., to Copolymer Rubber & Chemical Corporation. Preparation of rubber modified plastics. 3,538,192, 11-3-70, Cl. 260-878.
Bishop, William A., Sr.: *See—*
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Meredith, Curtis L.; Barrett, Robert E.; and Bishop, William A., Sr.,3,538,191.
Bishop, William S., Jr. Disposable surgical tourniquet. 3,504,675, 4-7-70, Cl. 128-327.
Bishop, Winford R. Window lock. 3,501,932, 3-24-70, Cl. 70-90.
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Bisone, Dario; and Tessitore, Armando, to General Electric Information Systems Italia S.p.A. Paper arresting device for high speed printers. 3,550,745, 12-29-70, Cl. 197-133.
Bisschops, Johann Heinrich; Steffens, Eduard Marius; and Boulonne, Andre, to Gevaert-Agfa N.V. Process for the production of a casting layer for the manufacture of films and sheets. 3,503,773, 3-31-70, Cl. 117-5.3
Bisschops, Johann Heinrich; and Van Landeghem, Willy Karel, to Gevaert-Agfa N.V. Magnetic recording material. 3,523,086, 8-4-70, Cl. 252-62.54
Bisschops, Johann Heinrich; Van Landeghem, Willy K.; and Bollen, Romain H., to Gevaert-Agfa N.V. Magnetic recording material. 3,525,694, 8-25-70, Cl. 252-62.54
Bissell, Harold R., Jr., to Carrier Corporation. Furnace having control module with plug-in relay means for control of differing voltage accessory. 3,544,003, 12-1-70, Cl. 236-11.
Bissell, Herbert D. Illuminated reading device. 3,500,034, 3-10-70, Cl. 240-6.4
Bissell Inc.: *See—*
Anderson, Howard A., 3,528,076.
Bissell, William S., to Lockheed Aircraft Corporation. Interlaminar tank sealing. 3,499,814, 3-10-70, Cl. 156-349.
Bissett, Thomas B.; Blair, Harold; Murphy, John B.; and Tatch, Martin S., to Bissett-Berman Corporation, The. Heavy maintenance service computer. 3,546,693, 12-8-70, Cl. 340-309.1
Bissett, Thomas B.; and Murphy, John Brian, to Bissett-Berman Corporation, The. Electrochemical cell circuits. 3,518,501, 6-30-70, Cl. 317-231.
Bissett, Thomas B.; and Tatch, Martin S., to Bissett-Berman Corporation, The. Electrolytic cell counter. 3,500,342, 3-10-70, Cl. 340-173.
Bissett-Berman Corporation, The: *See—*
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Bissinger, William E., to PPG Industries, Inc. Halogenated bicycloheptenones. 3,549,769, 12-22-70, Cl. 424-331.
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Biswell, Charles Bedford: *See—*
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Bither, Tom A., Jr., to Du Pont de Nemours, E. I., and Company. Zinc and cadmium dichalcogenides of pyrite-type crystal structure and their preparation. 3,497,331, 2-24-70, Cl. 23-315.
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Bittle, David F.; Farr, Allen H.; and Taylor, Ernest A., Jr., to Monsanto Company. Arresting elements for viscometers. 3,525,253, 8-25-70, Cl. 73-57.
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Bixler, Kenneth D., to Diamond International Corporation. Molded carton lock. 3,519,192, 7-7-70, Cl. 229-44.

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Bjork, Gustav R. Foldable container; particularly bed bottle. 3,535,714, 10-27-70, Cl. 4-112.

Bjorke, Merlin D., to Honeywell Inc. Double pulse modulator. 3,524,148, 8-11-70, Cl. 332-9.

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Bjorklund, Bengt Goran, to AB Akerlund & Rausing. Carton intended to contain a roll of a web-shaped material and comprising a tearing device. 3,547,328, 12-15-70, Cl. 225-49.

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Bjorn, Thomas E.; and Dopp, David S., to Stewart-Warner Corporation. Mechanical balancers. 3,499,330, 3-10-70, Cl. 73-458.

Bjornson, Geir, to Phillips Petroleum Company. Trifluoromethane and chlorodifluoromethane production, plasma jet pyrolysis of 1,2-dichlorotetrafluoroethane, hydrogenolysis of reaction effluent thus obtained, and hydrogenolysis of chlorotrifluoromethane and/or dichlorodifluoromethane. 3,494,974, 2-10-70, Cl. 260-653.

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Black, Dolphus H. Thermal radiation sensitive thermostat. 3,526,865, 9-1-70, Cl. 337-111.

Black, Donald V.; Jamtaas, Albert D.; Radey, Ross T.; and Wall, John K., to United States of America, Army. Rocket means for driving a free punch. 3,547,031, 12-15-70, Cl. 102-49.7

Black, Eileen Rockwell, to Flexnit Company, Inc. Foundation garment. 3,515,141, 6-2-70, Cl. 128-533.

Black, Eileen Rockwell, to Flexnit Company, Inc. Foundation garment. 3,515,142, 6-2-70, Cl. 128-533.

Black, Eileen Rockwell, to Flexnit Company, Inc. Foundation garments. 3,515,143, 6-2-70, Cl. 128-533.

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Black, James A. Drying chamber for continuous web stock. 3,499,233, 3-10-70, Cl. 34-155.

Black, James A. Slitting and scoring apparatus. 3,501,986, 3-24-70, Cl. 83-94.

Black, James A. Sheet to web laminating machine. 3,539,417, 11-10-70, Cl. 156-522.

Black, James F., to General Telephone & Electronics Laboratories, Incorporated. Multifrequency laser image converter. 3,493,754, 2-3-70, Cl. 250-83.3

Black, John W., to Pemco Wheel Company. Speed indicator for vehicles. 3,521,232, 7-21-70, Cl. 340-62.

Black, Martin L., to Parke, Davis & Company. N-[α-(p-methoxyphenyl)-β-nitroetyryl]- phenoxyalkyl pyrroles. 3,534,061, 10-13-70, Cl. 260-326.5

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Black, Robert B. Apparatus for industrial cleaning. 3,511,440, 5-12-70, Cl. 239-129.

Black, Robert B. Steam supply equipment. 3,529,771, 9-22-70, Cl. 239-129.

Black, Robert James; Sordello, Frank John; and Swartz, Jack Stewart, to International Business Machines Corporation. Digital-analog servo system. 3,523,229, 8-4-70, Cl. 318-601.

Black, Robert J.; and Sordello, Frank J., to International Business Machines Corporation. Digital comparison-to-analog signal converter. 3,518,658, 6-30-70, Cl. 340-347.

Black, Robert L., Jr.; and Mulligan, William L., to Parks-Cramer Company. Temperature responsive ends-down detecting and reporting apparatus and method. 3,523,414, 8-11-70, Cl. 57-56.

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Black, Stewart L., to Vendo Company, The. Method and apparatus for producing frozen carbonated beverage. 3,505,075, 4-7-70, Cl. 99-28.

Black, William Horace; Pittman, Clarence Edward; and Von Gal, George E., Jr. Automatic drawer forming and assembling machine and method and product thereof. 3,528,158, 9-15-70, Cl. 29-200.

Blackburn, Albert W. Control of aircraft by deflection of propulsion gases. 3,515,361, 6-2-70, Cl. 244-52.

Blackburn, Charles M.; Oyhus, Frederick A.; and Brashears, Richard S., to United States of America, Navy, mesne. Capsule for orbiting otolith specimens. 3,521,619, 7-28-70, Cl. 128-2.

Blackburn, Donald MacPherson, to Wickman Lang Limited. Turret lathes. 3,491,626, 1-27-70, Cl. 82-21.

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Blackburn, Walter L. Roller button. 3,489,467, 1-13-70, Cl. 308-18.

Blackburn, Wayne E.; Hamilton, Donald A.; Inners, Lester A.; and Reid, George C., to Xerox Corporation. Automated chemical analyzer. 3,497,320, 2-24-70, Cl. 23-230.

Blackert, John Edward, to Xerox Corporation. Camera-processor. 3,528,355, 9-15-70, Cl. 95-14.

Blacket, John Stirling. Automatic steering means for an agricultural tractor. 3,548,966, 12-22-70, Cl. 180-79.2

Blackett, James C., to Honeywell Inc. Fuel burner power failure bridge. 3,544,247, 12-1-70, Cl. 431-18.

Blackford, Wallace F., to McGraw-Edison Company. Control for luminaires employing gaseous discharge lamps at low ambient temperatures. 3,539,861, 11-10-70, Cl. 315-118.

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Blackie, James W. F.; Newell, Chester W.; and Vogel, Charles A., to Newell Industries, Inc. Tape roll handling apparatus and roll therefor. 3,526,406, 9-1-70, Cl. 274-4.

Blackley, William D.; Siegart, William R.; and Chafetz, Harry, to Texaco Inc. Fluorinated paraffin wax coatings. 3,515,582, 6-2-70, Cl. 117-143.

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Blackman, Calvin C. Multi-pedestal bell type annealing furnace. 3,497,193, 2-24-70, Cl. 263-49.

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Blackman, Robert J., to Eastman Kodak Company. Film cartridge opening device. 3,548,478, 12-22-70, Cl. 29-200.

Blackmer, Paul W.; and Hollstrom, Gunnar E., to Norton Company. Diamond abrasive tool. 3,540,162, 11-17-70, Cl. 51-206.

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Blackwell, Adolph G., to Southern Avionics Company. Keying apparatus for use with beacon markers or the like. 3,548,407, 12-15-70, Cl. 340-353.

Blackwell, Dana J., to Lewis Engineering Company. Illuminated indicating instrument with replaceable lamps. 3,526,762, 9-1-70, Cl. 240-2.1

Blackwell, Elliott H., to Warren Pumps, Inc. Turntable apparatus for dust and fume removal from a workpiece. 3,520,278, 7-14-70, Cl. 118-47.

Blackwell, Francis O., III; Wheeler, Russell M.; and Eisengrein, Robert H., to SFM Corporation. Angularly adjustable torque amplifier. 3,537,327, 11-3-70, Cl. 74-335.

Blackwell, George T., Jr. Railroad bed cribber. 3,543,297, 11-24-70, Cl. 37-104.

Blackwell, George T., Jr.; and Winters, Duard E. Track gauging method and apparatus. 3,524,624, 8-18-70, Cl. 254-43.

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Blackwell, Jennings P., to Phillips Petroleum Company. Production of sulfonate salts of lighter color. 3,507,909, 4-21-70, Cl. 260-513.

Blackwell, Robert J.; and Rumble, Robert C., to Esso Production Research Company. Pressure core barrel. 3,548,958, 12-22-70, Cl. 175-233.

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Blackwood, John; Patricia, John; and Buan, Danilo P., to Singer Company, The. Round end buttonhole mechanism for zigzag sewing machines. 3,518,954, 7-7-70, Cl. 112-158.

Blackwood, Richard D., to Kansas City Plywood Co. Furniture leg mount. 3,516,633, 6-23-70, Cl. 248-188.

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Blaga, Aurel; and Mc Arthur, Colin R., to Allied Chemical Corporation. Process for the preparation of sodium carboxymethylcellulose. 3,498,971, 3-3-70, Cl. 260-231.

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Meninger, Milan; and Blaha, Milos,3,498,702.

Blaha, Miroslav, to Zavody Jana Svermy, narodni podnik. Movable assemblies for typewriters. 3,498,440, 3-3-70, Cl. 197-74.

Blaha, Miroslav, to Zavody Jana Svermy, narodni podnik. Lever-supporting assembly for typewriters and the like. 3,500,975, 3-17-70, Cl. 197-22.

Blaha, Miroslav; and Keprda, Jaroslav, to Zavody Jana Svermy, narodni podnik. Controls for machines such as typewriters. 3,502,188, 3-24-70, Cl. 197-98.

Blaho, Rudolph G.: *See—*
Fritz, Albert J.; and Blaho, Rudolph G.,3,517,867.

Blaies, Herbert O., Jr.: *See—*
Burnett, Peter P. A.; Blaies, Herbert O., Jr.; Jansen, Kelton E.; and King, Sidney,3,514,365.

Blain, Claude: *See—*
Minart, Paul; Blain, Claude; Platzer, Roger; and Gervraud, Jean-Claude,3,503,510.

Blain, Roy W., to Elevator Equipment Company. Electric heater unit for liquid reservoirs. 3,497,677, 2-24-70, Cl. 219-523.

Blain, Roy W., to Elevator Equipment Company. Magnetic proximity switch. 3,503,020, 3-24-70, Cl. 335-205.

Blaine, Edward A.: *See—*
Bozarth, Abe Roscoe; and Blaine, Edward A.,3,539,467.

Blair, Alexander E. Hydrographic sampling device. 3,509,772, 5-5-70, Cl. 73-425.2

Blair, Alexander E. Apparatus for determining the rate of ascent or descent of free objects in a liquid medium. 3,513,696, 5-26-70, Cl. 73-148.

Blair, Boyd C., to Brackett Stripping Machine Co., Inc. Roll feed end sheet machine. 3,532,581, 10-6-70, Cl. 156-461.

Blair, Boyd C., to Brackett Stripping Machine Co., Inc. Method of making pads of sheets. 3,551,248, 12-29-70, Cl. 156-305.

Blair, Bryce Wilson; and Brown, Christopher Kingsley, to AMP Incorporated. Locking system for a card reader. 3,511,975, 5-12-70, Cl. 235-61.11

Blair, Calvin B., to United Manufacturers, Inc. Bale pack tie down. 3,520,555, 7-14-70, Cl. 280-179.

Blair, David E.; Frensdorff, Hans Karl; and Fuller, Ralph E., to Du Pont de Nemours, E. I., and Company. Continuous dilution viscometer. 3,535,917, 10-27-70, Cl. 73-55.

Blair, George S.; and Shaw, Harry. Molten adhesive dispensing apparatus. 3,509,849, 5-5-70, Cl. 118-6.

Blair, Harold: *See—*
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Blair, Haskel A., to LTV Ling Altec, Inc. Explosion-proof, horn-loaded lousdpeaker. 3,536,158, 10-27-70, Cl. 181-31.

Blair, James E.: *See—*
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Blair, John W., to Bendix Corporation, The. Relay valve. 3,526,440, 9-1-70, Cl. 303-40.

Blair, Johnny E. Safety inflatable tire mount for vehicle wheels. 3,508,596, 4-28-70, Cl. 152-340.

Blair, Johnny E. Dual-voltage automatic-switching electric lamp having a two-position thermal switch disposed within the envelope. 3,524,100, 8-11-70, Cl. 315-73.

Blair, Noel D., to Hooker Chemical Corporation. Fire retardant intumescent clear polyurethane coatings. 3,497,469, 2-24-70, Cl. 260-45.9

Blair, Rollá W. Vehicle handbrake and generator signal system. 3,489,999, 1-13-70, Cl. 340-69.

Blair, Ronald L. Undergarments. 3,526,229, 9-1-70, Cl. 128-542.

Blaisdell, Ronald G.; and deVos, Hendrik A. J., to Sylvania Electric Products, Inc. Lighting fixture. 3,511,984, 5-12-70, Cl. 240-44.1

Blaise, Herman T.: *See—*
Dane, Dan H.; and Blaise, Herman T.,3,534,826.
Maropis, Nicholas; Wilson, William A.; and Blaise, Herman T.,3,526,030.

Blake, Carl B.; and Tung, George K. L., to Martin-Marietta Corporation. Printing process. 3,510,340, 5-5-70, Cl. 117-38.

Blake, Dolores T.: *See—*
Blake, James J.,3,535,997.

Blake, Donald E. Apparatus and reamer for working pipe. 3,499,178, 3-10-70, Cl. 10-107.

Blake, Donald E. Method of cutting a rotating pipe. 3,546,986, 12-15-70, Cl. 82-47.

Blake, Donald L., to North American Rockwell Corporation. Textile spindle. 3,534,917, 10-20-70, Cl. 242-46.21

Blake, Edward John; and McCormick, Denis Vernon, to Camco (Machinery) Limited. Paper sheet conveying mechanisms. 3,519,266, 7-7-70, Cl. 271-49.

Blake, Francis G.: *See—*
Brown, Robert J. S.; Marlarky, Ian R.; and Blake, Francis G.,3,529,282.

Blake, James J., deceased (by Blake, Dolores T.; administratrix). Diazo developer. 3,535,997, 10-27-70, Cl. 95-89.

Blake, Lawrence R.; Penick, Joseph P., Jr.; and Connor, Harold W., to Celanese Corporation. Textile-finishing composition and textile treated therewith. 3,505,220, 4-7-70, Cl. 252-8.6

Blake, Lawrence S., to Dynamics Research Corporation. Absolute encoder having plurality of binarily related reticle tracks. 3,549,897, 12-22-70, Cl. 250-231.

Blake, Lawrence W.: *See—*
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Blake, Lawrence W., to American Hospital Supply Corporation, mesne. Parallel jaw spring clip and applicator. 3,509,882, 5-5-70, Cl. 128-325.

Blake, Lawrence W., to American Hospital Supply Corporation, mesne. Parallel jaw ratchet clip and retractor. 3,510,923, 5-12-70, Cl. 24-263.

Blake, Lawrence W., to American Hospital Supply Corporation, mesne. Surgical clip applicator. 3,518,993, 7-7-70, Cl. 128-321.

Blake, Martin: *See—*
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Blake, Morton. Semi-automated store. 3,532,184, 10-6-70, Cl. 186-1.

Blake, Paul Desmond; and Johnston, Roy Douglas, to Murex Welding Processes Limited. Arc welding electrodes. 3,513,289, 5-19-70, Cl. 219-146.

Blake, Ralph Kingsley, to Du Pont de Nemours, E. I., and Company. Process for making printing plates. 3,490,905, 1-20-70, Cl. 96-29.

Blake, Ralph Kingsley, to Du Pont de Nemours, E. I., and Company. Process for preparing printing plates and developer compositions therefor. 3,490,906, 1-20-70, Cl. 96-29.

Blake, Ralph Kingsley, to Du Pont de Nemours, E. I., and Company. Spontaneously developable photosoluble silver halide dispersions and elements. 3,490,909, 1-20-70, Cl. 96-94.

Blake, Ralph Kingsley, to Du Pont de Nemours, E. I., and Company. Photosolubilization image formation process with organic Dmax, maintainers. 3,493,373, 2-3-70, Cl. 96-64.

Blake, Ralph Kingsley, to Du Pont de Nemours, E. I., and Company. Process for dissolution development using thiourea compounds as Dmax. maintainers. 3,495,982, 2-17-70, Cl. 96-64.

Blake, Ralph Kingsley, to Du Pont de Nemours, E. I., and Company. Planographic offset printing masters. 3,547,641, 12-15-70, Cl. 96-76.

Blake, Wallace. Powder spreading device. 3,517,885, 6-30-70, Cl. 239-309.

Blakeley, Richard H., to VSI Corporation. Blind rivet. 3,489,056, 1-13-70, Cl. 85-78.

Blakely, James Madison, to Energy Sciences, Inc. Streaming. 3,533,562, 10-13-70, Cl. 239-553.5

Blakely, John M., to Research Corporation, mesne. Method of making blazed optical diffraction gratings. 3,530,010, 9-22-70, Cl. 148-1.

Blakely, Roger W., Jr., to Litton Systems, Inc. Noise rejection circuit. 3,546,595, 12-8-70, Cl. 328-1.

Blakeney, Hurley J.; and McNair, Willie L., to Simmonds Precision Products, Inc. Detector for hot boxes. 3,513,462, 5-19-70, Cl. 340-231.

Blakeslee, G. S., & Co.: *See—*
Holloway, Howard O.; and Trotto, Anthony, 3,522,872.
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Blakeway, Marvin J. Cigarette receiver and extinguisher. 3,542,039, 11-24-70, Cl. 131-235.

Blakey, George Thomas Allan: *See—*
Radford, Arthur Stanley; Blakey, George Thomas Allan; Constable, Geoffrey Ernest Patrick; Cullen, Graeme E.; and Swarbrick, Richard,3,516,527.

Blakistone, James T.: *See—*
Burdorf, Donald L.; Blakistone, James T.; and Karsh, Irving,3,493,157.

Blakkan, Bruce D., to Monsanto Company. Fluid measurement system having sample chamber with opposed reflecting members for causing multiple reflections. 3,524,066, 8-11-70, Cl. 250-218.

Blakley, Earl T.: *See—*
Marsh, Paul G.; and Blakley, Earl T.,3,549,010.

Blamoutier, Michel, to Compagnie Francaise Thomson Houston-Hotchkiss Brandt. Secondary-emission conductivity target comprising highly porous storage layer and less porous intermediate layer as base for metal film. 3,546,514, 12-8-70, Cl. 313-65.

Blamoutier, Michel; and Andre, Christian, to Compagnie Francaise Thomson Houston-Hotchkiss Brandt. Secondary emission conductivity target comprising plural laminations of different porous materials. 3,534,207, 10-13-70, Cl. 313-65.

Blanc, Bernard; Repiquet, Gerard; and Granger, Camille, to Naphtachimie. Humidity hardenable polyurethanes and compositions. 3,534,000, 10-13-70, Cl. 260-77.5

Blanc, Bernard; Repiquet, Gerard; and Granger, Camille, to Naphtachimie. Non-cellular polyurethanes and method for preparation with activated alumina. 3,538,038, 11-3-70, Cl. 260-37.

Blanc, Claude: *See—*
Espagno, Lucien; Blanc, Claude; and Huynh, Chanh Trung,3,533,220.

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Blanc, Joseph W.: *See—*
Donohue, Anthony J.,3,528,393.

Blanc-Tailleur, Guy, to Merin Gerin, Societe Anonyme. Current limiting circuit breaker with electrodynamic compensation. 3,550,049, 12-22-70, Cl. 335-195.

Blance, Robert B., to Monsanto Company. Crosslinkable pressure-sensitive adhesive resins. 3,532,708, 10-6-70, Cl. 260-31.2

Blanchard, Albert E.; and Nofzinger, Earl E., to Galloway, G. W., Company. Hydraulically powered tower assembly with pneumatic drive and control accessories. 3,511,339, 5-12-70, Cl. 182-148.

Blanchard, Beymon: *See—*
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Blanchard, Byron E.: *See—*
Westcott, Vernon C.; and Blanchard, Byron E.,3,533,286.

Blanchard, Elwood P., Jr., to Du Pont de Nemours, E. I., and Company. Copolymers of bicyclo 1.1.0 butanes. 3,523,928, 8-11-70, Cl. 260-80.

Blanchard, Felix P. Combined folding ironing board, table, drawing board and easel. 3,512,486, 5-19-70, Cl. 108-13.

Blanchard, Floyd W. Self-pressurizing, retractable ballpoint pen. 3,516,754, 6-23-70, Cl. 401-101.

Blanchard, Garth O.: *See—*
Lee, Wilbur W.; and Blanchard, Garth O.,3,487,942.

Blanchard, George P.: *See—*
Small, William A.; Blanchard, George P.; and Serbousek, William E.,3,508,709.

Blanchard, Jack: *See—*
Brumby, Edwin Garth; and Blanchard, Jack,3,512,014.

Blanchard, Jay L.; and Blanchard, Beymon. Drainage valve. 3,542,059, 11-24-70, Cl. 137-388.

Blanchard, John H.; and Anderson, George A., to Olin Mathieson Chemical Corporation. Heat exchanger. 3,508,606, 4-28-70, Cl. 165-145.

Blanchard, Louis A., Jr., to Chevron Research Company. Natural gas dehydration. 3,537,270, 11-3-70, Cl. 62-12.

Blanchard, Paul, to Compagnie Generale des Eaux. Process for removing ozone from ozone-loaded air. 3,516,783, 6-23-70, Cl. 23-4.

Blanchard, Paul, to Compagnie Generale des Eaux. Ozonizer element. 3,530,058, 9-22-70, Cl. 204-320.

Blanchard, Robert K. Fluid quantity measuring device. 3,494,194, 2-10-70, Cl. 73-308.

Blanchard, Robert W., to Lockheed Aircraft Corporation. Optical imaging apparatus utilizing logic circuitry alkali metal impregnated charcoal both in particulate. 3,527,881, 9-8-70, Cl. 178-6.

Blanchard, Roger H.; and Cisco, Richard L., to Parker-Hannifin Corporation. Manifold valve assembly. 3,502,106, 3-24-70, Cl. 137-612.1

Blanchet, Jacqueline Suzette: *See—*
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Blanchette, Jean Paul, to Consolidated Paper (Bahamas) Limited. Bag handling applicator. 3,498,244, 3-3-70, Cl. 112-262.

Blanchette, Robert G.; and Shelffo, Loren E., to Addressograph-Multigraph Corporation. Photoelectrostatic copying apparatus. 3,533,692, 10-13-70, Cl. 355-16.

Blanck, Joachim H.: *See—*
Happel, John; Blanck, Joachim H.; and Sakakibara, Yasumasa,3,496,221.

Blancke, Prudent O.: *See—*
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Blancke, Timothy B., to Weston Instruments, Inc. Amplifier with source voltage control. 3,521,179, 7-21-70, Cl. 330-30.

Bland, Charles, Jr.: *See—*
Le Doux, Francis N.; and Bland, Charles, Jr.,3,532,538.

Bland, Geoffrey, to Formica International Limited. Method of and apparatus for assembling stacks of flexible sheets in a predetermined order. 3,516,653, 6-23-70, Cl. 270-58.

Bland, Peter Douglas: *See—*
Brian, Robert Coles; and Bland, Peter Douglas,3,527,593.

Bland, Robert J., to Hewlett-Packard Company. Power supply voltage regulator having power sharing regulating transistors and current limiting means. 3,509,448, 4-28-70, Cl. 323-9.

Bland, Robert W.: *See—*
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Blanding, John E.; Trageser, Edmund C.; and Harrington, James Vincent, to General Dynamics Corporation. Product handling system for underwater wells. 3,503,443, 3-31-70, Cl. 166-0.6

Blanding, Leonard C.; Carino, Theodore R.; and Warnock, Lyle F., to Lear Siegler, Inc. Dynamic support accelerometer. 3,520,197, 7-14-70, Cl. 73-516.

Blanding, Wendell S., to Corning Glass Works. Mold for the centrifugal forming of molten glass. 3,506,431, 4-14-70, Cl. 65-302.

Blaney, Ted L., to Procter & Gamble Company, The. Amination of alkyl halides. 3,542,876, 11-24-70, Cl. 260-583.

Blank, Benjamin; and Zuccarello, William A., to Smith Kline & French Laboratories. Triphenylpropyl amines. 3,507,919, 4-21-70, Cl. 260-570.

Blank, George F.; and Bothe, Billy A., to Hexcel Corporation. Controlled area explosive bonding. 3,543,388, 12-1-70, Cl. 29-486.

Blank, Hans G., to General Telephone & Electronics Laboratories, Incorporated. Impedance controlling circuit for a load element. 3,543,086, 11-24-70, Cl. 315-169.

Blank, John L. Training device for aiding infants to walk. 3,529,819, 9-22-70, Cl. 272-70.

Blank, Wilhelm: *See—*
Raab, Karl; Konig, Helmut; Stiefel, Christian; and Blank, Wilhelm,3,512,483.

Blank, Winfield B., Jr., to Sinclair Oil Corporation. Well casing contact tool. 3,548,362, 12-15-70, Cl. 339-95.

Blanke, Bertram C. Combination bed table. 3,491,705, 1-27-70, Cl. 108-49.

Blankenagel, Hans-Jurgen, to Bolkow Gesellschaft mit beschrankter Haftung. Multi-stage rocket. 3,491,692, 1-27-70, Cl. 102-49.4

Blankenship, Ernest Bayne. Flame fired incinerator. 3,533,364, 10-13-70, Cl. 110-9.

Blankenship, Ernest B. Incinerator toilet with conveyor belt. 3,496,578, 2-24-70, Cl. 4-131.

Blankenship, Luther Earl, to Tektronix, Inc. Thermionic electron emission device having low heat loss. 3,551,726, 12-29-70, Cl. 313-337.

Blankenship, Milton J.; and McCarthy, Ralph, to Dow Chemical Company, The. Stabilization of methyl chloroform. 3,519,694, 7-7-70, Cl. 260-652.5

Blankenship, Vernon L.; and Ertle, Marion E., to Anchor Hocking Corporation. Air and water cooling of glassware forming machines. 3,499,746, 3-10-70, Cl. 65-265.

Blankenstein, Gunter: *See—*
Bodesheim, Ferdinand; Radlmann, Eduard; Blankenstein, Gunter; Rosendahl, Friedrich-Karl; and Nischk, Gunter,3,505,288.

Blanks, Robert F.: *See—*
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Blann, William A., to Allis-Chalmers Manufacturing Company. Apparatus for mineral beneficiation. 3,522,012, 7-28-70, Cl. 23-262.

Blanshine, Allison W.: *See—*
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Blanyer, Carl G., to Abex Corporation. Transient regulation of direct current electrical power supplies. 3,550,030, 12-22-70, Cl. 330-199.

Blasbalg, Herman L.; D'Antonio, Renato A.; and Najjar, Hann F., to International Business Machines Corporation. Time division communications processor. 3,541,524, 11-17-70, Cl. 340-172.5

Blasbalg, Herman L.; Hayase, Joshua Y.; Crutchfield, Richard C., Jr.; and Najjar, Hann F., to International Business Machines Corporation. Adaptive digital communication system. 3,534,264, 10-13-70, Cl. 325-15.

Blasbalg, Herman L.; Hayase, Joshua Y.; and Najjar, Hann F., to International Business Machines Corporation. Rate conversion system. 3,497,627, 2-24-70, Cl. 179-15.

Blaschke, Felix; and Hutter, Gerhard, to Siemens Aktiengesellschaft. Regulating circuit for the field of an asynchronous machine. 3,548,287, 12-15-70, Cl. 322-24.

Blaschke, Ludwig. Motion picture camera with signal generating means. 3,498,568, 3-3-70, Cl. 242-191.

Blasdell, Robert O., to Mead Corporation, The. Shipping container with interlocking flaps. 3,539,090, 11-10-70, Cl. 229-38.

Blaser, Don E., to Esso Research and Engineering Company. Fluid coking with cracking of more refractory less volatile oil in the transfer line. 3,537,975, 11-3-70, Cl. 208-50.

Blashfield, William H., to North Electric Company. Frequency generator with overload protection. 3,539,869, 11-10-70, Cl. 317-33.

Blask, William C.: *See—*
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Blaski, John F. Domed building construction and method. 3,495,365, 2-17-70, Cl. 52-127.

Blaski, John F. Building construction. 3,505,765, 4-14-70, Cl. 52-80.

Blaski, John F. Building construction. 3,535,836, 10-27-70, Cl. 52-80.

Blasko, Heinz: *See—*
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Blasko, Michael Julius; and Herrmann, Henry Otto, to Pennwalt Corporation. Multiple tundish system for metal refining plant. 3,536,125, 10-27-70, Cl. 164-258.

Blastic, Joseph E.; Karau, Norbert B.; and Kerr, Archie F., to Western Electric Company, Incorporated. Electrical transducer. 3,542,974, 11-24-70, Cl. 179-117.

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Blatt, Leland F. Rollers. 3,514,829, 6-2-70, Cl. 29-130.

Blatt, Leland F. Harmonic actuating unit for a power operated work piece gripping and handling mechanism. 3,546,956, 12-15-70, Cl. 74-394.

Blatt, Leland F.; and Williams, Paul R., to I.S.I. Manufacturing, Inc. Power clamp with pull-back action. 3,545,050, 12-8-70, Cl. 24-248.

Blatter, Albert, to Bendix Corporation, The. Miniature electrical switch. 3,497,651, 2-24-70, Cl. 200-83.

Blattner, Donald J.: *See—*
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Schindler, Walter; and Blattner, Hans,3,524,855.

Blattner, Karl; and Picard, Roland. Device for plotting of object points, lines and symbols on a photographic layer. 3,511,149, 5-12-70, Cl. 95-12.

Blatz, Paul E.; and Erickson, James O., to Mobil Oil Corporation. Oil recovery process. 3,543,855, 12-1-70, Cl. 166-274.

Blatz, Robert A.; and Andrews, Lamont F., to Handyards, Inc. Dispensing package for aprons. 3,503,494, 3-31-70, Cl. 206-57.

Blau, Donald Z.; and Kaufman, Jesse C., to Singer-General Precision, Inc. Range finding instruments. 3,489,495, 1-13-70, Cl. 356-4.

Blauert, Hans. Pulse detection apparatus. 3,514,638, 5-26-70, Cl. 307-268.

Blaumueller, Freimuth, to Dietzgen, Eugene Co. Base film with improved scribe coating and photosensitive coating applied thereon. 3,533,795, 10-13-70, Cl. 96-87.

Blaupunkt-Werke GmbH: *See—*
Graf, Peter Josef, 3,535,671.

Blaus, Janis: *See—*
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Blavette, Roger, to Societe Anonyme dite: Societe des Automobiles Simca. Gearbox control device. 3,489,028, 1-13-70, Cl. 74-473.

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Blaze, Joseph E., Jr., to Babcock & Wilcox Company, The. High temperature alumina-silica fibers and method of manufacture. 3,503,765, 3-31-70, Cl. 106-65.

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Blazek, Henry, to Sperry Rand Corporation. Pneumatic accelerometer. 3,517,559, 6-30-70, Cl. 73-503.

Blazer, Benjamin V.; and El-Tahry, Mahmoud S., to Blazer Corporation. Cooling tower apparatus. 3,494,109, 2-10-70, Cl. 55-257.

Blazer Corporation: *See—*
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Blea, Cyril: *See—*
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Bleak, Thomas M.; and Porter, Joe A., to Beckman Instruments, Inc. Temperature compensated electrochemical cell. 3,518,179, 6-30-70, Cl. 204-195.

Bleasdale, James L., to Du Pont de Nemours, E. I., and Company. Thermally durable aromatic copolyamides. 3,511,819, 5-12-70, Cl. 260-78.

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Blecharczyk, Walter J.: *See—*
Dereniuk, Paul; and Blecharczyk, Walter J.,3,539,674.

Bleckmann, Richard. Heating inserts. 3,525,849, 8-25-70, Cl. 219-318.

Bledsoe, Billy M. Thoracostomy device. 3,542,026, 11-24-70, Cl. 128-278.

Bleecher, Jeremy: *See—*
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Bleha, William Paul, Jr.: *See—*
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Bleibtreu, Alexander, to Maschinenfabrik Reinhausen Gebruder Scheubeck K.G. Switching device for opening non-current carrying circuits. 3,499,135, 3-3-70, Cl. 200-170.

Bleibtreu, Alexander, to Maschinenfabrik Reinhausen Gebruder Scheubeck K.G. High voltage switching device. 3,551,628, 12-29-70, Cl. 200-166.

Bleickardt, Werner, to Hasler A.G. Apparatus for generating synchronised timing pulses in a receiver of binary data signals. 3,544,907, 12-1-70, Cl. 328-63.

Bleistein, Edward: *See—*
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Bleiweiss, Arthur F.; Colombo, George; Dickson, John B.; and Orlov, Boris, to Lehigh Valley Industries, Inc. Flashers. 3,493,819, 2-3-70, Cl. 317-123.

Blekicki, Henry Thomas; and Moran, Raymond Michael, Jr., to Ciba Corporation. Epoxy resins cured with dicyandiamide and a condensate of equimolar proportions of phthalic anhydride and diethylenetriamine. 3,488,742, 1-6-70, Cl. 260-830.

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Blenkarn, Kenneth A., to Pan American Petroleum Corporation. Encapsulated cable for marine use. 3,517,517, 6-30-70, Cl. 61-46.5

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Blesch, Robert; Porter, Charles G.; and Reading, Oliver S., to United States of America, Atomic Energy Commission. Remote levelling measurement. 3,520,621, 7-14-70, Cl. 356-150.

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Blessinger, Thomas. Check photographing apparatus. 3,515,478, 6-2-70, Cl. 355-48.

Blessings, Inc.: *See—*
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Bleuel, Aloys, to Teves, Alfred, G.m.b.H. Radial-piston pump with improved cooling and lubrication. 3,519,370, 7-7-70, Cl. 417-273.

Bleuer, Keith T. Pencil clip. 3,534,445, 10-20-70, Cl. 24-11.

Blevins, George R., to Black and Decker Manufacturing Company, The. Coupling construction and support. 3,489,191, 1-13-70, Cl. 144-134.

Blevins, William V., to United States of America, Army. Air flowmeter. 3,504,542, 4-7-70, Cl. 73-205.

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Bleyle, Merrill; and Mitchell, Charles T., Jr., to Grace, W. R., & Co. Substrate housing vinylidine chloride copolymer coating on opposite surfaces thereof. 3,532,535, 10-6-70, Cl. 117-68.

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Blickenderfer, Charles, Jr.; Brookhyser, Byron B.; and Schliewe, Robert, to Weyerhaeuser Company. Method for aligning and transferring logs. 3,519,045, 7-7-70, Cl. 144-312.

Bliederhauser, Heinz, to Gebruder Boehringer Gesellschaft mit beschrankter Haftung. Magazine bar for transferring knitted fabric. 3,514,978, 6-2-70, Cl. 66-148.

Blick, David C.; Dakin, Ralph K.; and Mooney, Charles F., to Bausch & Lomb Incorporated. Beat frequency interferometer. 3,507,596, 4-21-70, Cl. 356-106.

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Blinov, Eduard Sergeevich: *See—*
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Bliss, Robert J. Skin marker for use in biopsy excisions. 3,502,070, 3-24-70, Cl. 128-2.

Blitchington, Frank Henning, Jr.; and Harris, Richard Allen, to Western Electric Company, Incorporated. Timing pulse generator. 3,526,796, 9-1-70, Cl. 310-168.

Blitz, Daniel; and Richmond, Martin R., to Sanders Associates, Inc. Correlator for digital signal processing. 3,548,383, 12-15-70, Cl. 340-172.5

Blitz, Daniel: *See—*
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Bliven, Paul. Welding materials having different characteristics. 3,504,158, 3-31-70, Cl. 219-117.

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Blixt, Clarence H.; and Cozby, Warren E., to No-Joint Concrete Pipe Company. Apparatus for forming concrete pipe in situ. 3,534,449, 10-20-70, Cl. 25-32.

Blixt, Richard E.; and Gundry, Joseph C., to Motorola, Inc. Compact strip-line type mixer using hybrid ring. 3,512,091, 5-12-70, Cl. 325-446.

Blizard, Robert B.; Pederson, Christ W.; and Polhemus, John T., to Martin-Marietta Corporation. Integrated parameter display of galvanometer reading. 3,548,378, 12-15-70, Cl. 340-151.

Blizard, Robert E., to Standard Pressed Steel Co. Lock nut. 3,522,830, 8-4-70, Cl. 151-7.

Blizzard, William H., to Smart-Tops, Inc. Crochet-type edge for sock. 3,511,053, 5-12-70, Cl. 66-172.

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Bloch, Herman S., to Universal Oil Products Company. Catalytic dehydrogenation of contaminated normal paraffin hydrocarbons. 3,491,162, 1-20-70, Cl. 260-671.

Bloch, Herman S., to Universal Oil Products Company. Production of napthalenes. 3,492,363, 1-27-70, Cl. 260-668.

Bloch, Herman S., to Universal Oil Products Company. Process for the preparation of an alkylaryl compound. 3,538,176, 11-3-70, Cl. 260-671.

Bloch, Herman S., to Universal Oil Products Company. Production of alcohols. 3,544,639, 12-1-70, Cl. 260-618.

Bloch, Herman S., to Universal Oil Products Company. Acetyl derivatives of substituted chromans and coumarans. 3,551,456, 12-29-70, Cl. 260-345.2

Bloch, Herman S.; and Schmerling, Louis, to Universal Oil Products Company. Reaction of halocycloalkenylacyl halides with prepolymers. 3,525,713, 8-25-70, Cl. 260-47.

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Blochl, Walter, to Noss, Laura, trading as Tondeo-Werk Adolf Noss, Firma. Coated razor blades. 3,508,957, 4-28-70, Cl. 117-132.

Blochl, Walter, to FMC Corporation. Thermal addition of polyfluoroalkyl iodides to ethylene. 3,535,393, 10-20-70, Cl. 260-653.1

Block, Aleck, to Merit Abrasive Products, Inc., mesne. Abrasive pack with self-contained anchoring flange and rearwardly adjacent supplemental leaves. 3,512,311, 5-19-70, Cl. 51-334.

Block, Aleck, to Merit Abrasive Products, Inc., mesne. Flap-type abrasive wheel. 3,548,551, 12-22-70, Cl. 51-337.

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Block, Burton Peter; and Dahl, Gerd Helmut, to Pennwalt Corporation. Carborane compounds. 3,517,060, 6-23-70, Cl. 260-543.

Block, Charles; and Mintz, Leon J., to Undergarment Assemblies, Inc. Apparatus for dispensing garment straps. 3,543,942, 12-1-70, Cl. 211-51.

Block, Edward A., to Ethicon, Inc. Suture coating of polyethylene or polytetrafluoro- ethylene. 3,527,650, 9-8-70, Cl. 117-7.

Block Engineering, Inc.: *See—*
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Block, Leo; and Ashton, Larry J., to Raypak Company, Inc. Draft hood. 3,536,060, 10-27-70, Cl. 126-307.

Block, Leo; and Rafenstein, Roy Frank, to Raypak Company, Inc. Burner safety control system. 3,518,034, 6-30-70, Cl. 431-45.

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Bloemendaal, Stanley D., to General Design Inc. Picker or feed mechanism for stacked items. 3,539,176, 11-10-70, Cl. 271-32.

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Blomberg, Knut Hugo. Wallbracket for standing telephones. 3,548,117, 12-15-70, Cl. 179-146.

Blomberg, Maurits C., to Miehle-Goss-Dexter Incorporated. Web folding assembly. 3,544,107, 12-1-70, Cl. 270-86.

Blome, James C. Ceramic-coated mufflers and methods of making same. 3,507,357, 4-21-70, Cl. 181-61.

Blomeyer, Karl F.; and Cracco, Francis J., to Procter & Gamble Company, The. Soaking and laundering process. 3,519,379, 7-7-70, Cl. 8-111.

Blomfield, Rodney A., to Diamond Alkali Company. Water repellent. 3,490,925, 1-20-70, Cl. 106-2.

Blomgren, George E.; and Jackson, George W., to Union Carbide Corporation. Non-aqueous battery with ethylene glycol sulfite electrolyte solvent. 3,547,703, 12-15-70, Cl. 136-154.

Blomgren, Jack P., to Minnesota Mining and Manufacturing Company. Vibration isolating motor bracket. 3,506,226, 4-14-70, Cl. 248-15.

Blomgren, Roland A.; Dokter, Henry J.; Murphy, Robert E.; Carey, Harry W.; and Waxler, Burton J., to Swift & Company. Apparatus for distributing a substance throughout a mass of material. 3,519,442, 7-7-70, Cl. 99-256.

Blomqvist, Harald W., to Oy Wiik & Hoglund AB. Apparatus for extruding tubes and pipes. 3,533,134, 10-13-70, Cl. 18-14.

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Blomqvist, Nils Verner; Croon, Ingemar Liss-Albin; and Sundell, Gustav Harry, to Mo och Domsjo Aktiebolag. Disposable sheet diaper and process for making the same. 3,547,930, 12-15-70, Cl. 128-284.

Blonde, Guy, to Societe Anonyme Outinord. Form work for casting concrete. 3,507,473, 4-21-70, Cl. 249-27.

Blonde, Guy, to Societe Anonyme Outinord. Casting frames or molds. 3,517,906, 6-30-70, Cl. 249-184.

Blonder, Isaac S., to Blonder-Tongue Electronics. Combined VHF-UHF dipole antenna. 3,509,574, 4-28-70, Cl. 343-792.5

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Blonsky, Joseph E., to Westvaco Corporation. Tree-harvesting apparatus. 3,528,468, 9-15-70, Cl. 144-309.

Blood, Alden Edward; Heller, James Davis; and Hagemeyer, Hugh J., Jr., to Eastman Kodak Company. Acrylonitrile-vinylidene chloride terpolymers. 3,497,481, 2-24-70, Cl. 260-78.5

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Blood, Charles H., to Bausch & Lomb Incorporated. Brake mechanism particularly for locking sensitive optical instruments in position. 3,523,594, 8-11-70, Cl. 188-171.

Blood, Douglass K.; and Hansen, Harold H., to Contracting and Material Company. Tractor attached vacuum lifter. 3,549,031, 12-22-70, Cl. 214-147.

Blood, Raymond; and Bentley, William, to William Cotton Limited. Knitting machines. 3,492,836, 2-3-70, Cl. 66-5.

Blood, Raymond; and Strong, Barry Colin, to Cotton, William, Limited. Straight bar knitting machines. 3,503,227, 3-31-70, Cl. 66-96.

Bloodsworth, Thomas J. Fishing rod holder. 3,523,666, 8-11-70, Cl. 248-44.

Bloom, Bernard; and Lev, Benjamin, to Midway Cap Company. Uniform cap. 3,488,777, 1-13-70, Cl. 2-195.

Bloom, Bernard; and Lev, Benjamin, to Midway Cap Company. Uniform cap. 3,548,416, 12-22-70, Cl. 2-180.

Bloom, Carl, to Worthington Corporation, mesne. Apparatus for measuring and indicating fluid pressure across a fluid restriction. 3,547,149, 12-15-70, Cl. 137-560.

Bloom, Carl, to Worthington Corporation. Compact housing for rotary compressor system. 3,547,164, 12-15-70, Cl. 141-326.

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Rudin, Walter; and Shannon, Robert A., 3,521,869.

Bloom, George H.; and Chiabrandy, Robert E., to General Electric Company. Automatic, burst firing gun. 3,535,980, 10-27-70, Cl. 89-47.

Bloom, Harold. Box signs. 3,538,634, 11-10-70, Cl. 40-152.

Bloom, Joseph Lewis, to Lucas, Joseph, (Industries) Limited. Control systems. 3,514,947, 6-2-70, Cl. 60-39.28

Bloom, Joseph Lewis, to Lucas, Joseph, (Industries) Limited. Fuel systems for gas turbine engines. 3,550,373, 12-29-70, Cl. 60-39.28

Bloom, Joseph Lewis, to Lucas, Joseph, (Industries) Limited. Speed responsive governors. 3,550,374, 12-29-70, Cl. 60-39.28

Bloom, Lester W.; and Olson, Thomas P., to Cronstroms Manufacturing, Inc. Insulted panel frame. 3,527,011, 9-8-70, Cl. 52-398.

Bloom, Martin S.: *See—*
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Bloom, Martin S., to Imperial Chemical Industries Limited. Structural laminate having a foamed core and two rigid faces. 3,535,198, 10-20-70, Cl. 161-161.

Bloom, Martin S.; and Brown, Martin Granger, to Imperial Chemical Industries Limited. Stabilization of calcium alpha sulphate hemihydrate slurry. 3,489,583, 1-13-70, Cl. 106-110.

Bloom, Melvin S.; and Newland, Gordon C., to Eastman Kodak Company. Nickel chelates of 2,5-bis(hydroxyaryl)thiazolo [5,4-d]thiazoles and processes for producing the same. 3,489,762, 1-13-70, Cl. 260-299.

Bloom, Quentin M., to Selas Corporation of America. Strip heating apparatus. 3,532,329, 10-6-70, Cl. 263-3.

Bloom, Sidney, 1/4 to Moore, William Britton. Navigation aid. 3,533,164, 10-13-70, Cl. 33-1.

Bloom, Stanley M., to Polaroid Corporation. Diffusion transfer processes and products comprising formation of a cyanine dye at receiving element. 3,537,851, 11-3-70, Cl. 96-29.

Bloom, Stanley M., to Polaroid Corporation. Diffusion transfer photographic processes and compositions comprising difunctional developers whose terminal moieties couple oxidatively into polymeric dyes. 3,537,852, 11-3-70, Cl. 96-29.

Bloom, Stanley M.; and Stephens, Robert K., to Polaroid Corporation. Novel photographic products and processes. 3,498,785, 3-3-70, Cl. 96-3.

Bloom, Walter L. Apparatus for measuring time spent standing or walking. 3,541,781, 11-24-70, Cl. 58-74.

Bloom, Walter L.; and Smith, John Sherman, to Scripto, Inc. Cigarette lighter with magnetic compass. 3,544,253, 12-1-70, Cl. 431-253.

Bloom, William, to Miner Industries, Inc. Illuminated balloon device. 3,536,906, 10-27-70, Cl. 240-10.

Bloomfield, Harold; and Purpura, August C., to Bloomfield Industries, Inc. Selectively heated chafing dish. 3,489,880, 1-13-70, Cl. 219-436.

Bloomfield, Harold; and Purpura, August C., to Bloomfield Industries, Inc. Pouring spouts for decanters. 3,491,924, 1-27-70, Cl. 222-567.

Bloomfield, Harold; Purpura, August C.; and Roberts, Melvin F., to Bloomfield Industries, Inc. Cold water pour-in beverage brewing device. 3,513,767, 5-26-70, Cl. 99-282.

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Bloomfield, Roger D.; Petersen, Paul S.; and Wiele, Robert W., to Sports Technology, Inc., mesne. Closure for boot door. 3,545,103, 12-8-70, Cl. 36-2.5

Blosse, Jean Charles Joseph; and Blosse, Michel Jean Joseph. Invisible spyglass. 3,512,873, 5-19-70, Cl. 350-196.

Blosse, Jean Charles Joseph; and Blosse, Michel Jean Joseph. Optical spyglass. 3,514,188, 5-26-70, Cl. 350-212.

Blosse, Michel Jean Joseph: *See—*
Blosse, Jean Charles Joseph; and Blosse, Michel Jean Joseph,3,512,873.
Blosse, Jean Charles Joseph; and Blosse, Michel Jean Joseph,3,514,188.

Blosser, Robert L., Jr.; Folland, Donald F.; and Russon, Wayne P., to Sperry Rand Corporation. Fluidic control systems. 3,538,931, 11-10-70, Cl. 137-81.5

Blossom, Raymond W.: *See—*
Pell, Malvyn B.; and Blossom, Raymond W.,3,507,699.

Blouin, Florine A.: *See—*
Arthur, Jett C., Jr.; Blouin, Florine A.; Mares, Trinidad; Stanonis, David J.; Phillips, Glyn O.; and Sarkar, Ila M.,3,519,382.

Blount, Elmo M.: *See—*
Kelly, John, Jr.; and Blount, Elmo M.,3,495,665.

Blount, Floyd E.: *See—*
Allen, Wallace B.; and Blount, Floyd E.,3,533,030.

Blount, Luther H. Lift dock for a water borne vessel. 3,504,502, 4-7-70, Cl. 61-65.

Blow, James H., Jr., to Xerox Corporation. Manifold sheet separating device. 3,537,703, 11-3-70, Cl. 271-18.

Blow, James H., Jr., to Xerox Corporation. Microfilm enlarger-copier. 3,542,468, 11-24-70, Cl. 355-18.

Blower, Sidney: *See—*
Coupland, Ernest; and Blower, Sidney,3,507,142.

Blowers, Stanley Owen, to Kerridge Joinery Limited. Case for storing articles. 3,529,878, 9-22-70, Cl. 312-107.

Blowsky, Frank C. Rotary collator with drive wheel for sheet projecting means. 3,540,721, 11-17-70, Cl. 270-58.

Bloxom, David E. Stable shelter and method of making same. 3,525,185, 8-25-70, Cl. 52-73.

Bluder, Arthur W., to ABC Packaging Machine Corporation. Diaphragm operated pivoted glue valve. 3,549,118, 12-22-70, Cl. 251-58.

Blue Bell Inc.: *See—*
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Blue, Donald E. Portable band saw. 3,518,909, 7-7-70, Cl. 83-201.04

Blue, John, Company, Incorporated: *See—*
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Blue Meridian Company, Inc.: *See—*
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Blue, Philip L., to Mallory, P. R., & Co. Inc. Electrical contact materials and method of making same. 3,508,320, 4-28-70, Cl. 29-420.5

Blue, Sidney D., to Reeves Brothers, Inc. Non-woven carpet and method of making the same. 3,497,414, 2-24-70, Cl. 161-67.

Blue, Sidney D., to Reeves Brothers, Inc. Thermal lamination of non-woven polyolefin fiber batts to polyurethane foam. 3,533,866, 10-13-70, Cl. 156-82.

Blue Valley Machine and Manufacturing Company: *See—*
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Bluemel, Andrew C. Scraper apparatus having multiple position bucket support. 3,521,711, 7-28-70, Cl. 172-26.5

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Bogdanowicz, Mitchell J., to Jayark Instruments Corporation. Cartridge for continuous loop film. 3,545,851, 12-8-70, Cl. 352-78.

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Bohm, Klaus; and Rumold, Gerhard, to Siemens Aktiengesellschaft. Circuit arrangement for the excitation of a DC machine. 3,506,909, 4-14-70, Cl. 322-63.

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Bohn, Martin C.; Brady, John F.; Rice, Kenneth G.; and Spinello, John O., to Chicago Clutch Manufacturing Co., Inc. Method of rebuilding worn teeth of gears, splines, sprockets and the like. 3,548,481, 12-22-70, Cl. 29-401.

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Bohnenkamp, Heinrich; and Modder, Otto, to Siegener Maschinenbau G.m.b.H. Rolling mill roll changing. 3,541,830, 11-24-70, Cl. 72-238.

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Boileau, Jacques, to Compagnie Generale des Etablissements Michelin, raison Sociale Michel & Cie. Radial tire. 3,498,354, 3-3-70, Cl. 152-209.

Boileau, Jacques, to Compagnie Generale des Etablissements Michelin raison sociale Michelin & Cie. Pneumatic tires and manufacture of the same. 3,500,888, 3-17-70, Cl. 152-356.

Boileau, Jacques, to Compagnie Generale des Etablissements Michelin raison sociale Michelin & Cie. Tires. 3,500,889, 3-17-70, Cl. 152-361.

Boileau, Jacques, to Compagnie Generale des Etablissements Michelin raison sociale Michelin & Cie. Radial ply tires. 3,500,890, 3-17-70, Cl. 152-361.

Boileau, Jacques, to Compagnie Generale des Etablissements Michelin raison sociale Michelin & Cie. Pneumatic tires. 3,515,197, 6-2-70, Cl. 152-361.

Boileau, Jacques, to Compagnie Generale des Etablissements Michelin, raison sociale Michelin & Cie. Support rings, called 'flaps', for pneumatic tires. 3,533,461, 10-13-70, Cl. 152-365.

Boileau, Jacques, to Compagnie Generale des Etablissements Michelin raison sociale Michelin & Cie. Pneumatic tires. 3,536,118, 10-27-70, Cl. 152-356.

Boileau, Jacques, to Compagnie Generale des Etablissements Michelin raison sociale Michelin & Cie. Pneumatic tires and adaptable rims therefor. 3,547,178, 12-15-70, Cl. 152-381.

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Boissevain, Mathew G., to FMC Corporation. Method of and apparatus for liquid handling and dialysis. 3,521,976, 7-28-70, Cl. 417-53.

Boissier, Jacques Robert; and Malen, Charles Edouard, to Societe Industrielle pour la Fabrication des Antibiotiques (S.I.F.A.). Derivatives of thiachromane as diuretics. 3,488,424, 1-6-70, Cl. 424-275.

Boissier, Jacques Robert; and Ratouis, Roger, to Societe Industrielle pour la Fabrication des Antibiotiques (S.I.F.A.). Aminoether derivatives of 9,10-ethano-9,10- dihydro-anthracene. 3,522,239, 7-28-70, Cl. 260-239.

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Boivent, Marcel, to Compagnie de Saint-Gobain. Cyclone type glass furnace. 3,510,289, 5-5-70, Cl. 65-335.

Bojo, Takuro, to Victor Company of Japan, Limited. Frequency converter circuit changeable to an audio frequency amplifier. 3,488,593, 1r6-70, Cl. 325-311.

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Bok, Edward, to Dike, Inc. Extendible-retractible pen having interior vent and capillary passage cleaning means. 3,535,049, 10-20-70, Cl. 401-259.

Bok, Edward, to Dike, Inc. Drafting pen with cleaning wire. 3,535,050, 10-20-70, Cl. 401-260.

Bok, Edward, to Dike, Inc. Drafting pen with cleansing vent valve stem. 3,545,877, 12-8-70, Cl. 401-259.

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Bok, Hendrik F. Baffle structure for a spray-coating environment. 3,500,741, 3-17-70, Cl. 98-115.

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Bokros, Jack C.; Chin, Jack; and Price, Robert J., to United States of America, Atomic Energy Commission. Pyrolytic carbon structures and process for making same. 3,547,676, 12-15-70, Cl. 117-46.

Bokros, Jack C.; and Ellis, Willard H., to Gulf General Atomic Incorporated, mesne. Method of preparing an intravascular defect by implanting a pyrolytic carbon coated prosthesis. 3,526,005, 9-1-70, Cl. 3-1.

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Boksjo, Carl Ingvar, to Allmanna Svenska Elektriska Aktiebolaget. Booster voltage circuit for series-connected thyristors. 3,536,938, 10-27-70, Cl. 307-305.

Boksjo, Carl Ingvar, to Allmanna Svenska Elektriska Aktiebolaget. Power transmission equipment for high voltage direct current. 3,543,129, 11-24-70, Cl. 321-2.

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Boland, Bernard W., to Motorola, Inc. Selective hydrofluoric acid etching and subsequent processing. 3,537,921, 11-3-70, Cl. 148-187.

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Bolaski, Michael P., Jr., 7% to Carrillo, Luke R. 1% to Henseler, Orville L. 1% to Larson, Ronald W. 1% each to Hawkins, Robert C. Wallace, Steadman M. Thompson, Marion L. Proffitt, Hobart W. Newton, Ronald B. Fitzgerald, James W. Fuhr, Abraham S. 3% to Rubio, Lillian R., and 5% to Woodard, Glenn E. Front vehicle suspension with automatic camber adjustment. 3,497,233, 2-24-70, Cl. 280-96.2

Boldebuck, Edith M.; and Gaertner, Richard F., to General Electric Company. Viscosity control additives in polyamide acid solutions. 3,496,132, 2-17-70, Cl. 260-32.6

Bolden, Harold E. Spectacles having resilient lens rims. 3,549,245, 12-22-70, Cl. 351-61.

Bolden, Richard E. Panel-type room divider and closure for wallylike opening and the like. 3,534,801, 10-20-70, Cl. 160-172.

Boldery, Luther E., to Triangle Research, Inc., mesne. Apparatus for audibly reproducing printed indicia. 3,536,854, 10-27-70, Cl. 179-100.3

Bolding, Hubert V., to Eastex Packaging, Inc. Package for lightbulbs and the like. 3,547,256, 12-15-70, Cl. 206-46.

Boldt, Carl F., to Enger Kress Company. Pass case closures. 3,548,907, 12-22-70, Cl. 150-39.

Bolduc, Lee R., to Medical Plastic Inc. Disposable ground plate electrode. 3,543,760, 12-1-70, Cl. 128-416.

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Bolen, Kenneth E., to Phillips Petroleum Company. Continuous application of heat shrinkable labels. 3,523,052, 8-4-70, Cl. 156-521.

Bolen, Wiley P.; Price, Ernest E.; and Holbrook, John T., Jr., to Canton Textile Mills, Inc. Method for modifying the surface texturing of fabrics. 3,523,346, 8-11-70, Cl. 28-75.

Bolenbaugh, Daniel L., to Bendix Corporation, The. Parking brake lever. 3,517,779, 6-30-70, Cl. 188-78.

Bolenbaugh, Daniel L., to Bendix Corporation, The. Automatic brake adjuster mechanism. 3,540,555, 11-17-70, Cl. 188-79.5

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Bolger, Justin C.; and White, Harrison James, to Amicon Corporation. Process and compositions for recovering electronic devices from encapsulation in potting compounds. 3,551,204, 12-29-70, Cl. 134-42.

Bolger, Leonard F., to Shell Oil Company. Operating technique for sulfur slurry pipeline. 3,547,497, 12-15-70, Cl. 302-66.

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Bolhofer, William A. Ester and amide derivative of 3-trifluoromethylphenoxy) (4-halophenyl)acetic acid. 3,517,050, 6-23-70, Cl. 260-473.

Bolhofer, William A., to Merck & Co., Inc. Phenoxy substituted phenylacetic acids. 3,517,051, 6-23-70, Cl. 260-473.

Bolhofer, William A., to Merck & Co., Inc. Ester derivatives of 2-(4-halophenoxy)alkanoic acids. 3,546,273, 12-8-70, Cl. 260-473.

Bolhofer, William A.; and Baldwin, John J., to Merck & Co., Inc. Substituted-2,3-dichloroquinoxalines and processes for preparing same. 3,510,487, 5-5-70, Cl. 260-250.

Bolhofer, William A.; Sprague, James M.; and Baldwin, John J., to Merck & Co., Inc. 2-Carbocyclic-6-tertiary amino alkoxy naphthalenes and tetralins. 3,489,756, 1-13-70, Cl. 260-247.7

Bolhuis, Pieter Jan; and Moerkens, Jozef Cornelis, to U.S. Philips Corporation, mesne. Tunnel-lighting arrangement. 3,506,821, 4-14-70, Cl. 240-9.

Bolick, Fred C., Jr., to Lanier Electronic Laboratory, Inc. Tape device with zone. 3,519,185, 7-7-70, Cl. 226-118.

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Bolie, Victor W., to Advanced Technology Corporation. Self-triggering standby ventricle for heart assist. 3,491,377, 1-27-70, Cl. 3-1.

Bolie, Victor W., to Oklahoma State University. System for storing cochlear profiles. 3,539,726, 11-10-70, Cl. 179-1.

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Bolinger, Edgar Dare, to Deering Milliken Research Corporation. Process for preparing twistless yarns. 3,512,232, 5-19-70, Cl. 28-75.

Bolinger, George Noel, to Sta-Rite Ginnie Lou, Inc. Ash tray with cigarette snuffer. 3,519,001, 7-7-70, Cl. 131-235.

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Bollag, Werner; Gutmann, Hugo; Hegedus, Balthasar; Kaiser, Ado; Langemann, Albert; Muller, Marcel; and Zeller, Paul, to Hoffmann-La Roche Inc. Methylhydrazinomethyl-substituted benzoic acid amides. 3,520,926, 7-21-70, Cl. 260-558.

Bollag, Werner; Gutmann, Hugo; Hegedus, Balthasar; Kaiser, Ado; Langemann, Albert; Muller, Marcel; and Zeller, Paul, to Hoffmann-La Roche Inc. 2-Methylhydrazine-methyl benzenes. 3,534,100, 10-13-70, Cl. 260-569.

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Boller, Hans. Massage device. 3,499,439, 3-10-70, Cl. 128-49.

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Bolles, William L., to Monsanto Company. Countercurrent contacting process. 3,529,403, 9-22-70, Cl. 55-82.

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Bolling, Carl, to I-T-E Imperial Corporation, mesne. Floating seal ball valve. 3,533,597, 10-13-70, Cl. 251-174.

Bollinger, George R., Jr.: *See—*
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Bollinger, Howard N., to American Hospital Supply Corporation. Wheelchair tray attachment. 3,515,429, 6-2-70, Cl. 297-153.

Bollinger, John G.; Harrison, Howard L.; and Berglund, Bjorn, to Smith, A. O., Corporation. Automatic tracer for positioning control. 3,530,273, 9-22-70, Cl. 219-125.

Bollinger, John G.; Harrison, Howard L.; and Stankey, Michael A., to Smith, A. O., Corporation. Automatic control system for angular and planar electrode orientation. 3,542,996, 11-24-70, Cl. 219-125.

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Bolongaro, Pietro. Doll, plump baby, puppet, animal or similar toy capable of walking. 3,490,412, 1-20-70, Cl. 46-149.

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Bolster, Michael S. Method and apparatus for calibrating radiation detection and measurement instruments. 3,519,821, 7-7-70, Cl. 250-83.

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Bolt, Murray H.; and Nick, Howard H., to International Business Machines Corporation. Digital transmission system. 3,516,065, 6-2-70, Cl. 340-170.

Bolt, Murray H.; and Nick, Howard H., to International Business Machines Corporation. Logic circuit directionally combining single pulses representing logic variables. 3,518,450, 6-30-70, Cl. 307-216.

Boltalin, Anatoly Petrovich: *See—*
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Bolte, Ronald P.; and Kunz, Eugene L., to ACF Industries, Incorporated. Railway car having increased coupler swing for curve negotiability. 3,529,552, 9-22-70, Cl. 105-362.

Bolton, Anthony P.; Lanewala, Mohammed A.; and Donley, Samuel W., to Union Carbide Corporation. Catalytic xylene isomerization process and catalyst therefor. 3,525,775, 8-25-70, Cl. 260-668.

Bolton, Anthony P.; and Pickert, Paul E., to Union Carbide Corporation. Isoparaffin alkylation process and catalyst for use therein. 3,549,557, 12-22-70, Cl. 252-455.

Bolton, Benjamin A., to Standard Oil Company. Process for reducing viscosity of polytrimellit- amide-imide solution. 3,546,152, 12-8-70, Cl. 260-2972

Bolton, R. B., (Mining Engineers) Limited: *See—*
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Bolton, Ramon, to Marconi International Marine Company Limited, The. Range and bearing measuring apparatus. 3,530,235, 9-22-70, Cl. 178-6.8

Bolton, Robert Benjamin; and Gray, Thomas, to Bolton, R. B., (Mining Engineers) Limited. Replenishment tanks. 3,517,815, 6-30-70, Cl. 210-256.

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Boltz, Charles D., Jr., to General Motors Corporation. Circuit for determining which of two repetitive pulse signals has the highest frequency. 3,539,920, 11-10-70, Cl. 324-79.

Boltz, Howard A., to Lockheed Aircraft Corporation. Apparatus for removing electrical insulation. 3,527,138, 9-8-70, Cl. 90-11.

Bolyard, Lyle V.; and Griffin, Richard G. Universal backfill and landscaping blade. 3,523,380, 8-11-70, Cl. 37-141.

Bolz, Ralph C.; and Jeffery, Robert W., to Sperry Rand Corporation. Power transmission. 3,516,768, 6-23-70, Cl. 418-82.

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Bolza-Schunemann, Hans Bernhard, to Schnellpressenfabrik Koenig & Bauer Aktiengesellschaft. Folding mechanism for rotary printing presses. 3,521,878, 7-28-70, Cl. 270-72.

Bolza-Schunemann, Hans-Bernhard; and Weschenfelder, Otto, to Schnellpressenfabrik Koenig & Bauer Aktiengesellschaft. Gear folder for rotary presses. 3,540,723, 11-17-70, Cl. 270-77.

Bolzmann, Hans; and Kriebel, Walter, to Electroacustic Gesellschaft m.b.H. Sonar method and apparatus for recording reflectors, for example schools of fish. 3,497,867, 2-24-70, Cl. 340-3.

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Bombero, Thomas F.; and More, Robert P., to Eversharp, Inc. Aerosol dispenser. 3,497,110, 2-24-70, Cl. 222-146.

Bombicino, Thomas A., to New England Mica Company. Composite insulating laminate and method for making the same. 3,540,976, 11-17-70, Cl. 161-93.

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Bompart, Reuben N. Garbage can stand with lid holders. 3,547,273, 12-15-70, Cl. 211-84.

Bon, Charles K., to Dow Chemical Company, The. Process for clarifying dilute latices. 3,520,860, 7-21-70, Cl. 260-821.

Bon, Charles K.; and Moolenaar, Robert J., to Dow Chemical Company, The. Purification of lithium aluminates. 3,506,393, 4-14-70, Cl. 23-52.

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Bonanno, John. Method of creating design material for making garments and trim. 3,525,104, 8-25-70, Cl. 2-244.

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Bonanno, Joseph L.; Tepper, Sidney; and Boydman, Hyman, to Topper Corporation. Doll having electrical action-producing mechanism responsive to actuators on separate articles. 3,514,899, 6-2-70, Cl. 46-232.

Bonanno, Joseph L.; Tepper, Sidney; and Boydman, Hyman, to De Luxe Topper Corporation. Electrical switch means. 3,521,014, 7-21-70, Cl. 200-83.

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Bonazoli, Robert P.; and Cleary, Lawrence P., to Sylvania Electric Products, Inc. Quartz-halogen projection lamp. 3,522,470, 8-4-70, Cl. 315-71.

Bonczek, Joseph E., to Scott & Fetzer Company, The, mesne. U-tube manometer with shipping seal. 3,541,858, 11-24-70, Cl. 73-401.

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Bond, Elvin H., to Roberts Company. Textile machine feeder mechanism. 3,487,509, 1-6-70, Cl. 19-156.4

Bond, Frederick Henry, to Lucas, Joseph, (Industries) Limited. Grommets. 3,508,292, 4-28-70, Cl. 16-2.

Bond, George Everett, Jr.; Kibler, Charles J.; and Lappin, Gerald R., to Eastman Kodak Company. Polyester adhesive. 3,505,293, 4-7-70, Cl. 260-75.

Bond, Harry Laurence Fred, to Davy and United Engineering Company Limited. Rolling mills. 3,516,276, 6-23-70, Cl. 72-237.

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Bond, John L. Cervical collar. 3,530,853, 9-29-70, Cl. 128-75.

Bond, John L. Cervical halter. 3,548,816, 12-22-70, Cl. 128-75.

Bond, John R. J. Combination golf cart and golf bag. 3,489,426, 1-13-70, Cl. 280-40.

Bond, Milton F.: *See—*
Andrews, Douglas R.; Atrubin, Allan J.; Baumgartner, Richard J.; Bond, Milton F.; and Hu, Kuang-Chi,3,517,387.
Baumgartner, Richard J.; and Bond, Milton F.,3,526,876.

Bond, Milton F., to International Business Machines Corporation. Character recognition system. 3,528,058, 9-8-70, Cl. 340-146.3

Bond, Robert D., to Ames, B. C., Company. Air gauging three-dimensional objects. 3,527,092, 9-8-70, Cl. 73-37.5

Bond, Robert Frank, to General Electric Company Limited, The. Transmitter and receiver for delta-sigma code modulation system employing logic circuits to achieve volume compression and expansion. 3,506,917, 4-14-70, Cl. 325-38.

Bond, William C.: *See—*
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Bond, William D., to World Industries, Inc. Pool cleaning suction head. 3,509,589, 5-5-70, Cl. 15-1.7

Bond, William Percy, to International Computers and Tabulators Limited. Document feeding apparatus. 3,527,458, 9-8-70, Cl. 271-30.

Bond, William Percy, to International Computers and Tabulators Limited. Sheet feeding apparatus. 3,537,704, 11-3-70, Cl. 271-74.

Bondar, Ljudmila Sergeevna; and Okunev, Rostan Alexandrovich. Method for the production of α-substituted acids. 3,530,156, 9-22-70, Cl. 260-413.

Bondarenko, Nikolai Ivanovich: *See—*
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Bondesson, Lennart Adolf; and Svensson, Hilding Sven, to Alfa-Laval AB. System for producing margarine. 3,494,275, 2-10-70, Cl. 99-244.

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Bondley, Ralph J., to United States of America, Army, mesne. Method of making thermionic cathodes. 3,534,455, 10-20-70, Cl. 29-25.14

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Bone, John D., to Union Carbide Corporation. Arc welding control apparatus. 3,511,966, 5-12-70, Cl. 219-131.

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Perry, Charles B.; and Bone, Kendall F.,3,540,566.
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Bone, Louis J. Control means for cable television. 3,497,612, 2-24-70, Cl. 178-6.

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Bonetti, Giovanni A.; Rosenthal, Rudolph; and Shubkin, Ronald L., to Atlantic Richfield Company. Preparation of tertiary amine oxides. 3,494,924, 2-10-70, Cl. 260-293.

Bonetti, Giovanni A.: *See—*
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Bonfeld, Murray D.; and Jaasma, Edward G., to Bell Telephone Laboratories, Incorporated. Phase comparison microwave discriminator. 3,530,387, 9-22-70, Cl. 329-116.

Bonga, Benno Ibo, to Ateliers des Charmilles S.A. Apparatus for electrical machinery of current conductive workpieces. 3,506,559, 4-14-70, Cl. 204-224.

Bonga, Benno Ibo, to Anocut Engineering Company, mesne. Electrical connectors to a workpiece in electro- erosion machines. 3,536,603, 10-27-70, Cl. 204-224.

Bongaarts, John P., to Sperry Rand Corporation. Biased magnetic head suspension. 3,491,348, 1-20-70, Cl. 340-174.1

Bongenaar, Hendrik; and Nienhuis, Willem Fokko. Method of providing a clamping band around the bulb of a television picture tube and implosion-free tube manufactured by means of this method. 3,512,234, 5-19-70, Cl. 29-25.13

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Bongers, Hendrikus Johannes; and Moitzfeld, Winfried, to Siempelkamp, G., & Co. Apparatus for tensioning reinforcing strands for belts and the like. 3,502,535, 3-24-70, Cl. 156-494.

Bongianni, Wayne L., to Hughes Aircraft Company. Ultrasonic dispersive delay line. 3,488,607, 1-6-70, Cl. 333-30.

Bonhomme, Francois Robert, to Connectronics Corporation. Electric contacts. 3,517,374, 6-23-70, Cl. 339-176.

Boniface, Colin Ernest, to Foster Wheeler Corporation. Plugging of defective tubes in tube bundles. 3,488,829, 1-13-70, Cl. 29-474.3

Bonin, George E., to Corning Glass Works. Mechanical leveling chuck. 3,497,202, 2-24-70, Cl. 269-47.

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Mangini, Angelo; Tundo, Antonio; Bonini, Bianca Flavia; and Rossetti, Marta,3,527,747.

Bonitz, Eckhard, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of organosilanes. 3,505,379, 4-7-70, Cl. 260-448.8

Bonk, Chaim. Cap. 3,512,180, 5-19-70, Cl. 2-172.

Bonkowski, Joseph E., to Hercules Incorporated. Polyolefins stabilized with tertiary amine group- containing compounds. 3,547,875, 12-15-70, Cl. 260-45.8

Bonkowski, William S.; and Corallo, Nunzio Ralph, to Thermo Electric Co., Inc. Spring-loaded thermocouple. 3,516,873, 6-23-70, Cl. 136-221.

Bonlie, Russell W. Charcoal briquette and manufacture thereof. 3,527,580, 9-8-70, Cl. 44-11.

Bonn, David E.: *See—*
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Bonnard, Lucien: *See—*
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Bonnart, Jacques Paul Marie; Bonnet, Yannik; and Rey, Paul Pierre Marie, to Rhone-Poulenc S.A. Process for the preparation of hydroperoxides. 3,510,526, 5-5-70, Cl. 260-610.

Bonnart, Jacques; and Rey, Paul, to Rhone-Poulenc S.A. Process for the purification of benzyl alcohol. 3,523,978, 8-11-70, Cl. 260-618.

Bonnaud, Michel, to Automobiles Peugeot, and Regie Nationale des Usines Renault. Supporting, pivoting and locking device for a convertible seat of a vehicle. 3,550,949, 12-29-70, Cl. 296-69.

Bonnaval, Pierre; and Fouilloy, Jean Pierre, to U.S. Philips Corporation, mesne. Radar device with frequency modulation and spectral compression of the intermediate-frequency signal. 3,493,969, 2-3-70, Cl. 343-17.5

Bonne, Roger; Jacquot, Maurice; and Fourre, Jacques. Impregnation of a material based on carbon by molten metals. 3,549,408, 12-22-70, Cl. 117-47.

Bonneau, Claude, to Rhone-Poulenc S.A. Spherules of 2-(N-morpholinothio) benzothiazole. 3,516,902, 6-23-70, Cl. 161-168.

Bonneau, John H. Garbage can holder. 3,506,231, 4-14-70, Cl. 248-131.

Bonnefoy, Jean Roger Henri; and Dreyfus, Bertrand Alain, to Photocircuits Corporation. Machines for sawing samples of brittle materials. 3,508,534, 4-28-70, Cl. 125-21.

Bonnefoy, Jean Roger; and Dreyfus, Bertrand Alain, to Photocircuits Corporation, mesne. Method of producing wire guides for a machine for sawing samples of brittle materials. 3,525,145, 8-25-70, Cl. 29-558.

Bonnefoy, Jean Roger; and Dreyfus, Bertrand Alain, to Photocircuits Corporation, mesne. Machines for sawing samples of brittle materials. 3,525,324, 8-25-70, Cl. 125-16.

Bonnel, Bernard: *See—*
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Bonnell, Roswell W.: *See—*
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Bonnema, Donald E.: *See—*
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Bonner, George A., to United Aircraft Corporation. Shaft seal. 3,490,818, 1-20-70, Cl. 308-36.2

Bonner, Marvin M., to Texas Instruments, Incorporated. Bonding apparatus. 3,504,156, 3-31-70, Cl. 219-87.

Bonner, Willard Hallam, Jr., to Du Pont de Nemours, E. I., and Company. Polyvinyl chloride foam structure. 3,503,907, 3-31-70, Cl. 260-2.5

Bonner, Willard Hallam, Jr., to Du Pont de Nemours, E. I., and Company. Process for carding microcellular fibers. 3,521,328, 7-21-70, Cl. 19-145.9

Bonnet, Georges L.; Di Piazza, Learco; Junger, Jean-Marie; Leroy, Rene S.; Mollica, Guido; and Monzani, Ermelino, to European Atomic Energy Community (Euratom). Machine tool for cutting an assembly of coaxial tubes into parts, particularly the channels of a pressure-tube nuclear reactor. 3,533,318, 10-13-70, Cl. 82-70.2

Bonnet, Jacques F.: *See—*
Baeni, Josef; Bonnet, Jacques F.; and Sandmeier, Max K.,3,529,573.

Bonnet, Yannik: *See—*
Bonnart, Jacques Paul Marie; Bonnet, Yannik; and Rey, Paul Pierre Marie,3,510,526.

Bonnevalle, Bernard. Process and device for the restoration of clogged- wells. 3,511,326, 5-12-70, Cl. 175-61.

Bonnivard, Georges, to Institut de Recherches de la Siderurgie Francaise, and Bureau de Recherches Geologiques et Minieres. Separation process for nickel and cobalt. 3,516,822, 6-23-70, Cl. 75-103.

Bonnotte, Paul, to Societe Anonyme de Vehicules Industriels et d'Equipments Mecaniques Saviem. Hydropneumatic suspension systems of vehicles. 3,499,639, 3-10-70, Cl. 267-64.

Bonomi, Antonio. Container with walls collapsible in a stacked condition. 3,542,234, 11-24-70, Cl. 220-7.

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Bonorden, Thomas E.: *See—*
Olstowski, Franciszek; McMichael, Wallace T.; Watson, John D., Sr.; Vaught, Leonard M.; Bonorden, Thomas E.; and Hagemier, Thomas G.,3,492,197.

Bonotto, Sergio; and Krevsky, Burton H., to Union Carbide Corporation. Flexible thermoplastic resins as binders for vulcanized rubber. 3,489,710, 1-13-70, Cl. 260-33.6

Bonsor, Charles A. Balancing device. 3,488,998, 1-13-70, Cl. 73-66.

Bonsor, Charles A. Cutting attachment for mower blades. 3,514,935, 6-2-70, Cl. 56-295.

Bonta, Simon: *See—*
Crounse, Nathan N.; Bonta, Simon; and Ploss, Charles J.,3,532,750.

Bontrager, Lloyd J. Collapsible trailer. 3,495,866, 2-17-70, Cl. 296-27.

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Bonvicini, Alberto: *See—*
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Bonvicini, Alberto; and Cantatore, Giuseppe, to Montecatini Edison S.p.A. Basic nitrogen polycondensates and dye-receptive polyolefin compositions containing such polycondensates. 3,510,437, 5-5-70, Cl. 260-2.

Bonyhard, Peter I.; and Gianola, Umberto F., to Bell Telephone Laboratories, Incorporated. Content addressable domain wall wire memory. 3,488,645, 1-6-70, Cl. 340-174.

Bonyhard, Peter I.; Seidel, Harold; and Shapiro, Herbert M., to Bell Telephone Laboratories, Incorporated. Magnetic domain shift register meter reader. 3,503,044, 3-24-70, Cl. 340-150.

Bonzagni, Francis A., to Monsanto Company. Process for preparing stable condensation resins of aldehydes, aminotriozines and polyhydroxyl compounds and products obtained thereby. 3,501,429, 3-17-70, Cl. 260-17.3

Bonzer Inc.: *See—*
Wiley, Wallace F., Jr., 3,538,506.
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Booe, James M., to Mallory, P. R., & Co., Inc. Construction for nonhermetic sealed solid electrolyte capacitor. 3,491,269, 1-20-70, Cl. 317-230.

Boogaard, Boudewijn L.: *See—*
Pezarro, Salomon; and Boogaard, Boudewijn L.,3,492,249.

Booher, Robert K., to North American Rockwell Corporation. Gating system for reducing the effects of negative feedback noise in multiphase gating devices. 3,518,451, 6-30-70, Cl. 307-221.

Booher, Robert K., to North American Rockwell Corporation. Multiphase gate usable in multiple phase gating systems. 3,526,783, 9-1-70, Cl. 307-205.

Book, Nils Evert Erling, to Aktiebolaget Motala Verkstad. Means for closing and opening multiplaten presses. 3,518,724, 7-7-70, Cl. 18-16.

Book, Philip S.: *See—*
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Booker, Bradford J.: *See—*
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Booker, Clyde A., Jr.; Lambright, John E.; Thompson, Francis T.; and Dow, Bruce R., to Westinghouse Electric Corporation. Manipulation pad with ferromagnetic matrix especially adapted for use in an object recognition computer system. 3,530,437, 9-22-70, Cl. 340-172.5

Booker, Clyde A., Jr.: *See—*
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Booker, Robert J.; Hessler, Frank; and Perkins, Allen L., to Bradley Washfountain Co. Lavatory unit. 3,535,715, 10-27-70, Cl. 4-167.

Bookout, Charles C., to Ford Motor Company. Two-speed transmission with two simple planetary gear units. 3,541,886, 11-24-70, Cl. 74-763.

Bookout, Floyd V.: *See—*
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Boom, Clarence O., to Gardner-Denver Company. Exhaust tube for down-hole drill. 3,527,239, 9-8-70, Cl. 173-67.

Boom, Roger W.; Salter, Luther Carlton, Jr.; and Vetrano, James B., to North American Rockwell Corporation. Persistent switch means for a superconducting magnet. 3,551,861, 12-29-70, Cl. 335-216.

Boomer, Daryl R. Method of forming a high pressure seal for noncircular openings. 3,516,148, 6-23-70, Cl. 29-527.4

Boomgaarden, Steven L.; and Johnson, Orlo J., to Tel-E-Lect, Inc. Extendable boom remote control system. 3,524,521, 8-18-70, Cl. 182-46.

Boon, William. Laundry and fabric collector and method having a constant vacuum. 3,524,681, 8-18-70, Cl. 302-59.

Boone, Clair W. Fluid control apparatus. 3,543,309, 12-1-70, Cl. 4-35.

Boone, Daniel E.; and Ralston, Paul H., to Calgon Corporation, and Amerada Hess Corporation, mesne. Stabilized drilling mud. 3,544,461, 12-1-70, Cl. 252-8.5

Boone, Donald H.; and Goward, George W., to United Aircraft Corporation. Overhaul process for aluminide coated gas turbine engine components. 3,544,348, 12-1-70, Cl. 117-2.

Boone, Ralph D.; and Purtell, Rufus J., to Knight, J. B., Co., Inc., The. Irrigation system with driving chalk line. 3,500,856, 3-17-70, Cl. 137-344.

Boone, Robert A.; and Cortland, Paul, to United States of America, Atomic Energy Commission. Measurement and control of focus in electron beam welding. 3,542,995, 11-24-70, Cl. 219-121.

Boone, Robert E., to Bailey Meter Company. High-gain single-stage A.C. cascode amplifier circuit. 3,516,003, 6-2-70, Cl. 330-17.

Boonton Electronics Corporation: *See—*
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Boop, Billy Joe, to Western Company of North America, Inc., The. Sealing off a firing chamber in a perforating tool. 3,528,512, 9-15-70, Cl. 175-4.55

Boop, Billy Joe; and Hile, George B., Jr., to Western Company of North American, Inc., The. Apparatus for sealing chambers in a perforating tool. 3,528,511, 9-15-70, Cl. 175-4.55

Boop, Gene T. Magnetic depth indexing means. 3,513,912, 5-26-70, Cl. 166-65.

Boorda, Mikhail Iljich: *See—*
Livshits, Abram Lazarevich; Kravets, Arkady Timofeevich; and Boorda, Mikhail Iljich,3,504,152.

Boos, Donald L., to Standard Oil Company, The (Ohio). Electrolytic capacitor having carbon paste electrodes. 3,536,963, 10-27-70, Cl. 317-230.

Boos, Philip D., Jr., to Stewart-Warner Corporation. Center pivoted butterfly dump valve. 3,539,148, 11-10-70, Cl. 251-138.

Boos, Roger T., to Bethlehem Steel Corporation. Apparatus and method for attaching a working device to an oxygen lance. 3,550,923, 12-29-70, Cl. 266-34.

Boose, Robert C.: *See—*
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Boot, Herbert W.; and Langton, Frederick H., to USM Corporation. Automatic grinding attachmen: for bottom roughing² machine. 3,550,329, 12-29-70, Cl. 51-241.

Boot, Herbert W.; and Wood, Allan C., to USM Corporation. Control means for use with a positively guided tool. 3,518,851, 7-7-70, Cl. 69-6.5

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Booth, Frank B., to Union Oil Company of California. Hydrocarbonylation on process. 3,511,880, 5-12-70, Cl. 260-604.

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Booth, John S. Gravity operated door hinge. 3,546,736, 12-15-70, Cl. 16-153.

Booth, Leonard K. Stake pointer. 3,519,038, 7-7-70, Cl. 143-51.

Booth, Llewellyn D.; and Langner, Ralph R., to Dow Chemical Company, The. Alkylene oxide copolymers with 0.01 to 2.0 percent of a polyepoxide. 3,544,655, 12-1-70, Cl. 260-830.

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Booth, Raymond L., to North American Rockwell Corporation. Braking device for textile machinery. 3,503,427, 3-31-70, Cl. 139-100.

Booth, Robert A.; and Scriver, Richard M., to Reactive Metals, Inc. Method of coating a crucible with sodium chloride. 3,531,318, 9-29-70, Cl. 117-95.

Booth, Robert Ben, to American Cyanamid Company. Mine backfill process. 3,508,407, 4-28-70, Cl. 61-35.

Booth, Robert Ben, to American Cyanamid Company. Coal suspension pumping using polyelectrolytes. 3,524,682, 8-18-70, Cl. 302-66.

Booth, Shirley H.; and Lepiston, John G., to Hoerner Waldorf Corporation, mesne. Method of making a flat bottom multi-ply bag. 3,530,774, 9-29-70, Cl. 93-35.

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Booth, William M. Target assembly. 3,495,829, 2-17-70, Cl. 273-102.1

Boothe, James Howard: *See—*
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Boothe, Willis A., to General Electric Company. Fluid amplifier position control system. 3,489,181, 1-13-70, Cl. 137-81.5

Boothe, Willis A., to General Electric Company. Ganged variable fluidic resistor device. 3,532,126, 10-6-70, Cl. 138-43.

Boothe, Willis A.; and Alger, John R. M., to General Electric Company. Washing machine with improved liquid and additive dispensing means. 3,513,866, 5-26-70, Cl. 137-81.5

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Boothroyd, Howard W., to Sanders Associates, Inc. Damping means for rate gyros. 3,523,458, 8-11-70, Cl. 74-5.5

Boothroyd, Wilson P., to Sylvania Electric Products, Inc. Apparatus for inserting a signal portion into a signal. 3,520,996, 7-21-70, Cl. 179-1.

Boothroyd, Wilson P., to Sylvania Electric Products, Inc. Apparatus for deleting a portion of a signal. 3,541,264, 11-17-70, Cl. 179-15.55

Boothroyd, Wilson P., to Sylvania Electric Products, Inc. Single tube color television camera. 3,551,590, 12-29-70, Cl. 178-5.4

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Booty, Donald J.; Jauch, Christian M.; Vander Velde, Charles F.; and Waage, Jack C., to Spartus Corporation. Pendulum clock. 3,546,874, 12-15-70, Cl. 58-129.

Boozer, James J. Combination water filtering and water treating device. 3,506,132, 4-14-70, Cl. 210-448.

Bopp, Ann F., to Corning Glass Works. Light-diffusing surfaces for glass-ceramic articles. 3,519,474, 7-7-70, Cl. 117-124.

Bopp, Cecil W.; Porter, James B., Jr.; and Cone, William H., to Construction Machinery Company. Combination weighing and mixing apparatus for fertilizer or the like. 3,512,360, 5-19-70, Cl. 60-52.

Bopp, Cecil W.; Porter, James B., Jr.; and Cone, William H., to Construction Machinery Company. Weighing apparatus with hydraulic cylinder pivot means for emptying into mixing drum. 3,539,029, 11-10-70, Cl. 177-145.

Bopp, Warren G., to Eaton Yale & Towne, Inc. Blocker device. 3,503,280, 3-31-70, Cl. 74-695.

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Boram, William R.; and Acle, Luis, Jr., to International Harvester Company. Monomeric, solid state solutions of certain aromatic diamines in derivatives of benzophenone tetracarboxylic acid. 3,506,583, 4-14-70, Cl. 252-188.3

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Borba, William A., Sr. Casting rod. 3,507,069, 4-21-70, Cl. 43-18.

Borchardt, Gerald N.; Hamouz, George J.; and Martin, Frank M., to International Harvester Company. Implement coupling and supporting apparatus. 3,508,386, 4-28-70, Cl. 56-25.4

Borchardt, Hans J., to Du Pont de Nemours, E. I., and Company. Gadolinium activated yttrium phosphate, borate and germanate ultraviolet emitting phosphors. 3,542,690, 11-24-70, Cl. 252-301.4

Borchers, Henning H.; Gillich, Thomas N.; and Uhlig, Fritz, to Azoplate Corporation, mesne. Presensitized diazo material for the preparation of printing plates. 3,522,042, 7-28-70, Cl. 96-33.

Borchers, Henning H.; Steppan, Hartmut; and Uhlig, Fritz, to Kalle Aktiengesellschaft. Process for the preparation of a printing plate presensitized with a diazonium salt. 3,510,307, 5-5-70, Cl. 96-75.

Borchert, Alfred E.; and Capaldi, Eugene C., to Atlantic Richfield Company. Adamantyl epoxides. 3,536,732, 10-27-70, Cl. 260-348.

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Borchert, Ernst, III; and Southland, John Robert, to Winslow Product Engineering Corporation. Apparatus for grinding drills. 3,543,445, 12-1-70, Cl. 51-33.

Borchert, Robert Curtis, to Union Carbide Corporation. Process for preparing organosilicon-nitrogen compounds. 3,530,092, 9-22-70, Cl. 260-46.5

Borck, Walter C., Jr.; Gregory, John G.; Hudson, James R.; and Murtha, John C., to Westinghouse Electric Corporation. Variable structure computer. 3,544,973, 12-1-70, Cl. 340-172.5

Bordak, John A.; and Kowalski, Walter, to McGraw-Edison Company. Circuit interrupter having a quick closing action. 3,551,627, 12-29i70, Cl. 200-153.

Bordalen, Knut, to Sentralinstitutt for Industriell Forskning Sentralenstitutt for Industriell Forskning. Method and apparatus for regulating supplied current in cathodic protection. 3,515,654, 6-2-70, Cl. 204-147.

Borden, Clarence W., to Goodall Rubber Company. Method of making a helically grooved reinforced hose. 3,502,527, 3-24-70, Cl. 156-143.

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Bordenca, Carl, to SCM Corporation, mesne. Process for the manufacture of sorbic acid. 3,510,514, 5-5-70, Cl. 260-526.

Bordes, Maurice, to Application des Gaz. Valves. 3,503,586, 3-31-70, Cl. 251-266.

Bordman, Morris A. Anti-moth cake holder. 3,544,007, 12-1-70, Cl. 239-60.

Bordonaro, Michael P., to Combustion Engineering, Inc. Pulse-frequency to D.C. converter. 3,502,904, 3-24-70, Cl. 307-233.

Bordonaro, Michael P., to Combustion Engineering, Inc. Time division frequency multiplier. 3,548,317, 12-15-70, Cl. 328-20.

Bore, Raymond. Mine props. 3,535,071, 10-20-70, Cl. 248-357.

Bore, Raymond. Support piers for mines. 3,550,383, 12-29-70, Cl. 61-45.

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Borenstein, Benjamin, to Hoffmann-La Roche Inc. Coloring process cheese. 3,528,822, 9-15-70, Cl. 99-117.

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Borer, Alan John, to Servomex Controls Limited. Methods of an apparatus for temperature control. 3,549,864, 12-22-70, Cl. 219-497.

Borer, Herbert W.; and Muntjanoff, John R., to Caterpillar Tractor Company. Automatic loader bucket control and indicator. 3,547,293, 12-15-70, Cl. 214-761.

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Bork, John F., to Lubrizol Corporation, The. Lubricant and fuel compositions containing esters. 3,542,678, 11-24-70, Cl. 252-51.5

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Borkowski, Casimer J.; and Kopp, Manfred K., to United States of America, Atomic Energy Commission. Position-sensitive radiation detector. 3,517,194, 6-23-70, Cl. 250-83.6

Borkowski, Raymond P.; Grafstein, Daniel; and Flower, Robert A., to Singer-General Precision, Inc. Light source tracking apparatus by light standard comparison. 3,514,609, 5-26-70, Cl. 250-203.

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Borkowski, Walter L.; and Vanderwerff, William D., to Sun Oil Company. Process for preparing esters. 3,546,274, 12-8-70, Cl. 260-475.

Born, Gunthard K., to United States of America, Army. High power gas-discharge microwave duplexer having means therein for dispersing and attenuating large amplitude acoustic oscillations. 3,535,583, 10-20-70, Cl. 315-39.

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Bornzin, James H., to International Harvester Company. Universal joint shielding. 3,504,508, 4-7-70, Cl. 64-3.

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Bornzin, James H.; and Grillot, Homer N., to International Harvester Company. Twine knife, keeper blade actuated. 3,492,035, 1-27-70, Cl. 289-14.

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Borth, Paul; and McKeone, Joseph, to Photo-Engravers Research Institute, Incorporated. Composition and method for etching photoengraving copper printing plates. 3,514,409, 5-26-70, Cl. 252-79.3

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Bosen, Wendell R.; Humberger, Roger B.; Smith, Jack L.; and Davis, Charles M., to Simplot, J. R., Company. Treatment of phosphate ore. 3,493,340, 2-3-70, Cl. 23-165.

Boser, Dieter, to Mettler Instrumente AG. Apparatus for supporting, heating and simultaneously illuminating a plurality of test tubes. 3,532,435, 10-6-70, Cl. 356-246.

Boser, Ronald J. Elastic severing and positioning attachment. 3,536,020, 10-27-70, Cl. 112-130.

Boser, Ronald: *See—*
DeVito, Joseph; Tendrup, Donald; and Boser, Ronald,3,531,807.

Bosewitz, Gerhard; Ehlies, Helmut; and Dickscheit, Rudolf, to Institut fur Die Garungs- und Getrankeindustrie. Apparatus for treating beer worts. 3,524,402, 8-18-70, Cl. 99-276.

Boshinski, Edwin E.: *See—*
Allen, Kenneth C.; and Boshinski, Edwin E.,3,548,163.

Boshuizen, Cornelis: *See—*
VerNooy, Burton; and Boshuizen, Cornelis,3,544,136.

Bosi, Angiolino, to Marabese, Dorino. Water-closet flush tank assembly. 3,501,780, 3-24-70, Cl. 4-41.

Boskovich, Boris, to Honeywell Inc. Aircraft condition control apparatus with redundant sensors. 3,505,641, 4-7-70, Cl. 340-27.

Bosland, Bruce; and Colombo, Robert P. Safety latch for cabinets. 3,497,251, 2-24-70, Cl. 292-64.

Bosland, James M.: *See—*
McFadyen, Richard; Bosland, James M.; and Marchese, Justin,3,532,175.

Bosler, Helmut, to Bergische Achsenfabrik Fr. Kotz & Sohne. Disc brake and mounting therefor. 3,500,968, 3-17-70, Cl. 188-73.

Bosley, Charles F.: *See—*
Carmichael, Thomas F.; Bosley, Charles F.; and Papp, Joseph R.,3,538,392.

Bosley, Denis V.: *See—*
Golden, Michael E.; Bosley, Denis V.; Goetz, John H.; Munday, James F.; and Ryan, John W.,3,510,966.

Bosma, Hendrik, to U.S. Philips Corporation. Junction circulator wherein each arm is coupled to the ferromagnetic body at two places. 3,521,195, 7-21-70, Cl. 333-1.1

Bosman, Edward T.: *See—*
Lundin, Robert S.; Wallentowitz, Klaus; and Bosman, Edward T.,3,546,479.

Bosnak, John J.: *See—*
Joslow, David L.; and Bosnak, John J.,3,541,271.

Bosnich, Angelo John. Vessel auxiliary stabilizers. 3,508,511, 4-28-70, Cl. 114-126.

Bossard, Bernard; and Yuan, Shui, to RCA Corporation. Balanced mixer circuits. 3,513,398, 5-19-70, Cl. 325-446.

Bossard, Werner: *See—*
Ackerman, Hans; Bossard, Werner; Voltz, Jacques; and Wegmuller, Hans,3,532,682.
Ackermann, Hans; Bossard, Werner; Voltz, Jacques; and Wegmuller, Hans,3,527,748.
Ackermann, Hans; Bossard, Werner; Voltz, Jacques; and Wegmuller, Hans,3,531,456.
Ackermann, Hans; Bossard, Werner; Voltz, Jacques; and Wegmuller, Hans,3,531,457.
Ackermann, Hans; Bossard, Werner; Voltz, Jacques; and Wegmuller, Hans,3,531,458.
Bosshard, Hans; and Bossard, Werner,3,539,597.

Bossard, Werner; and Wegmuller, Hans E., to Geigy, J. R., A.G. Non-metallizable arylazoaminonaphthalene sulphonamide or sulphonic acid aryl ester dyestuffs. 3,546,203, 12-8-70, Cl. 260-196.

Bossart, Clayton J., to Mine Safety Appliances Company. Adsorbent for gas-solid chromatography. 3,500,616, 3-17-70, Cl. 55-386.

Bossart, Clayton J., to Mine Safety Appliances Company. Gas chromatography column and method of making same. 3,514,925, 6-2-70, Cl. 55-386.

Bossco, Inc.: *See—*
Burge, Edward V., 3,526,284.

Bosse, David W.: *See—*
Gragson, James T.; Bosse, David W.; and Mills, King L.,3,523,896.

Bosse-Platiere, Marius Felicien, to Societe Dognin S.A. Lace-knitting machine. 3,512,378, 5-19-70, Cl. 66-84.

Bossen, David A.; and Frech, Edward J., to Industrial Nucleonics Corporation. Means and method for modulating fiber stock flow in papermaking headbox in response to paper sheet product parameters. 3,547,775, 12-15-70, Cl. 162-198.

Bossers, Chris F., to Sylvania Electric Products, Inc. Means for controlling electrostatic charge on the rear window of a cathode ray tube. 3,551,718, 12-29-70, Cl. 313-64.

Bossert, Friedrich; and Vater, Wulf, to Farbenfabriken Bayer Aktiengesellschaft. 1,4-Dihydropyridine derivatives. 3,488,359, 1-6-70, Cl. 260-295.5

Bossert, Friedrich; and Vater, Wulf, to Farbenfabriken Bayer Aktiengesellschaft. 4-Pyrimidyl-1,4-dihydropyridine derivatives and their production. 3,511,837, 5-12-70, Cl. 260-256.4

Bosshard, Hans Heinrich: *See—*
Wegmann, Jacques; Bosshard, Hans Heinrich; Koller, Eugen Johann; and Porret, Daniel,3,494,717.
Burdeska, Kurt E.; Bosshard, Hans; and Pugin, Andre,3,541,099.

Bosshard, Hans; and Bossard, Werner, to Whitten, H. A., & Co., mesne. β-Arylated naphthoxidines and a method of preparation. 3,539,597, 11-10-70, Cl. 260-396.

Bosshardt, Rolf: *See—*
Fechtig, Bruno; Vischer, Ernst; Bickel, Hans; Bosshardt, Rolf; and Urech, Jakob,3,503,964.

Bossi, Emilio: *See—*
Martorana, Giovanni; and Bossi, Emilio,3,535,923.

Bossi, Hans Jurg, to Aktiengesellschaft Brown, Boveri & Cie. Thyristor chain comprising thyristors connected in series. 3,551,739, 12-29-70, Cl. 315-200.

Bossinger, Charles D.: *See—*
Enkoji, Takashi; and Bossinger, Charles D.,3,549,765.

Bossler, Robert B., Jr., to Kaman Corporation. Flexible coupling. 3,521,465, 7-21-70, Cl. 64-12.

Bossmann, Clifford W.; Kaufmann, Harland A.; and Mathes, Charles E., to National Cash Register Company, The. Apparatus for producing a set of control detents for a business machine. 3,512,435, 5-19-70, Cl. 83-71.

Bosso, Joseph F.: *See—*
Wismer, Marco; and Bosso, Joseph F.,3,510,323.

Bossons, Walter H., to Masson Scott Thrissell Eng., Ltd. Web guide members. 3,521,802, 7-28-70, Cl. 226-97.

Bostick, Edgar E., to General Electric Company. Polymerization of monomers with group 11-A metal complexes. 3,509,067, 4-28-70, Cl. 252-431.

Bostick, Edgar E., to General Electric Company. Polymerization of monomers with group 11-A metal complexes. 3,548,033, 12-15-70, Cl. 260-879.

Bostick, Edgar E.; and Gilbert, Alfred R., to General Electric Company. Crosslinking of aromatic polymers with organic polysulfonazides. 3,507,829, 4-21-70, Cl. 260-47.

Bostick, Edgar E.; Hay, Allan S.; and Chalk, Alan J., to General Electric Company. Graft copolymers of polyphenylene ethers. 3,522,326, 7-28-70, Cl. 260-823.

Bostitch Division of Textron, Inc.: *See—*
Boulay, Henri A.; and Silva, Joseph, 3,502,256.

Bostock, Howard K.; and Manuel, Thomas A., to Esso Research and Engineering Company. Heat and aging stabilization of uncured halogenated butyl rubber. 3,534,123, 10-13-70, Cl. 260-888.

Boston, Robert L.: *See—*
Goodman, Robert C.; and Boston, Robert L.,3,499,147.

Boston, Robert S.; and Seymour, David J. Ship hull having adjustable bow bulb. 3,540,400, 11-17-70, Cl. 114-56.

Bostrom, Alan H.; and McLarty, Jack Lowrie, to Universal Oil Products Company, mesne. Loop shaped diving board spring of resin impregnated glass fiber. 3,498,606, 3-3-70, Cl. 272-66.

Bostrom, Karl-Johan, to Boliden Aktiebolag. Means for controlling and regulating the load acting on vehicle axles. 3,494,632, 2-10-70, Cl. 280-104.5

Bostrom, Olle, to AGA Aktiebolag. Weighing device for automatically weighing a load comprising a plurality of substances and method of filling containers with the aid of the weighing device. 3,536,152, 10-27-70, Cl. 177-1.

Bostwick Steel Lath Company, The: *See—*
Leifer, John L., 3,536,345.

Bostyn, Jean Fernand: *See—*
Gest, Robert H.; Bostyn, Jean Fernand; and Martinet, Jean,3,513,474.

Bosuego, Michiko D., to Mitzi Co., Inc. Fabric with decorative surface. 3,538,873, 11-10-70, Cl. 112-266.

Boswell, David, to International Standard Electric Corporation. Printed circuits. 3,487,541, 1-6-70, Cl. 29-626.

Boswell, George A., Jr.; and Ripka, William C., to Du Pont de Nemours, E. I., and Company. Selected 6 β-and 6 α-trifluoromethoxyl androstane, estrane and pregnane derivatives. 3,546,259, 12-8-70, Cl. 260-397.4

Boswell, George Albert, Jr., to Du Pont de Nemours, E. I., and Company. Selected derivatives of 6,6-difluoro-17α-ethynyl- 17β-hydroxyester-4-ene-3-one. 3,511,861, 5-12-70, Cl. 260-397.5

Boswell, George Albert, Jr., to Du Pont De Nemours, E. I., and Company. Testosterone and 19-nortestosterone(4'-methylbi- cyclo [2.2.2.] octane-1'-methyl) carbonate and selected derivatives. 3,523,126, 8-4-70, Cl. 260-397.4

Boswell, George Albert, Jr.; and La Lancette, Eugene A., to Du Pont de Nemours, E. I., and Company. Selected 6-difluoromethylene steroids of the pregnane series. 3,504,002, 3-31-70, Cl. 260-397.3

Boswell, John E. E., Jr.: *See—*
Schmoyer, Arthur R.; Dozier, James J., Jr.; Bradford, Richard H.; and Boswell, John E. E., Jr.,3,503,296.

Bosworth, Kenneth O. Selector valve. 3,536,101, 10-27-70, Cl. 137-315.

Bosworth, Melvin B.; Bowman, Douglas F.; Sparkes, Harry P.; and Young, Clarence A., to Lockheed Aircraft Corporation. Electrical connectors. 3,518,617, 6-30-70, Cl. 339-107.

Bosy, George: *See—*
Walker, Robert G.; and Bosy, George,3,549,384.

Botalam: *See—*
Glasson, Jean E., 3,548,739.
Glasson, Jean Emile, 3,506,108.

Botcherby, Stephen Charles Lauder, to Decca Limited. Optical mixing devices. 3,503,682, 3-31-70, Cl. 356-4.

Botden, Theodoor Peter Johannes: *See—*
De Jong, Martinjn; Knapen, Matheus Jeanne Gerardus; and Botden, Theodoor Peter Johannes,3,534,472.

Botden, Theodoor Peter Johannes; Klomp, Johannes Theodorus; and van de Ven, Adrianus Johannes Cornelis, to U.S. Philips Corporation. SiO_2-CaO-BaO composition and method for bonding therewith. 3,489,627, 1-13-70, Cl. 156-89.

Botefuhr, Harold R.; and Stavenhagen, Richard F., to Murphy, G. W., Industries, Inc. Electric hand tool with heat conductive thrust bearing means. 3,546,502, 12-8-70, Cl. 310-50.

Boteler, Henry W., to Grinnell Corporation. Method for assembling a valve. 3,488,824, 1-13-70, Cl. 29-157.1

Bothe, Benno. Combined saw and sickle. 3,495,329, 2-17-70, Cl. 30-144.

Bothe, Billy A.: *See—*
Blank, George F.; and Bothe, Billy A.,3,543,388.

Bothe, Werner, to Maschinenfabrik Hasenclever AG. Forging press. 3,521,475, 7-21-70, Cl. 72-429.

Bothos, Costas. Headset device. 3,547,219, 12-15-70, Cl. 181-31.

Botimer, Donald W. Quick change tool holder. 3,512,793, 5-19-70, Cl. 279-91.

Botjer, John L.; Donner, Edward O.; Frye, Harold E.; and Keeler, Howard S., to International Business Machines Corporation. Display device with video signals interleaved in segments of a cyclical storage. 3,497,613, 2-24-70, Cl. 178-6.8

Botkin, Lawrence A., to Fruehauf Corporation. Valve actuator. 3,538,929, 11-10-70, Cl. 137-77.

Botnick, Irlin H.; Golrick, Philip D.; and Polster, Lewis H., said Golrick and Polster assors to said Botnick. Vehicle safety seat belt rigging. 3,506,083, 4-14-70, Cl. 180-82.

Botsford, James H., to Bethlehem Steel Corporation. Quiet metal can. 3,534,882, 10-20-70, Cl. 220-1.

Botsford, Samuel. Waste disposal system. 3,522,613, 8-4-70, Cl. 4-131.

Botsolas, Chris J.; and Lionikis, George. Method and device for covering pipe fittings. 3,495,629, 2-17-70, Cl. 138-149.

Bott, George Spencer; and Konazewski, William Peter, to American Cyanamid Company. Rake-type tray loader. 3,494,097, 2-10-70, Cl. 53-244.

Bott, George: *See—*
Taylor, Arthur Sinclair; Sandhage, Ellsworth; Bott, George; and Konazewski, William,3,490,574.
Taylor, Arthur Sinclair; Sandhage, Ellsworth; Bott, George; and Konazewski, William,3,527,017.

Bott, John A. Luggage rack. 3,519,180, 7-7-70, Cl. 224-42.1

Bott, Lawrence L., to Nalco Chemical Company. Silica organo sol friction treatment composition and method of application. 3,547,663, 12-15-70, Cl. 106-36.

Botta, Artur: *See—*
Vernaleken, Hugo; Malamet, Georg; Botta, Artur; Bottenbruch, Ludwig; and Schnell, Hermann,3,547,895.

Bottani, Angelo, to Societa Internazionale Fonovisione S.p.A. Electrically actuated kaleidoscope. 3,501,217, 3-17-70, Cl. 350-4.

Bottani, Angelo. Projection apparatus having multiple sound unit. 3,508,816, 4-28-70, Cl. 352-6.

Bottani, Angelo, to Societe Internationale Fonovisione S.p.A. Automatic audio and audio-visual projection apparatus. 3,522,988, 8-4-70, Cl. 352-8.

Bottcher, Bodo: *See—*
Wilhelm, Klaus; and Bottcher, Bodo,3,546,660.

Bottenberg, Hans H.; Jestadt, Hans-Joachim; Leysieffer, Hans G.; and Stockinger, Felix Johan, to Siemens Aktiengesellschaft. Navigation method with the aid of satellites. 3,544,995, 12-1-70, Cl. 343-6.

Bottenbruch, Ludwig: *See—*
Binsack, Rudolf; Bottenbruch, Ludwig; and Schnell, Hermann,3,541,048.
Bockmann, August; Vernaleken, Hugo; Bottenbruch, Ludwig; Rudolph, Hans; and Schnell, Hermann,3,549,692.

Bottenbruch, Ludwig; and Schnell, Hermann, to Farbenfabriken Bayer Aktiengesellschaft. Process for the production of polybenzoxazine diones. 3,510,454, 5-5-70, Cl. 260-47.
Lippert, Axel; Bottenbruch, Ludwig; Casper, Clemens; Court, Otto; and Vernaleken, Hugo,3,550,669.
Schneider, Rudolf; Court, Otto; Damsky, Walter; Spott, Georg; Schnell, Hermann; Bottenbruch, Ludwig; Curtius, Ulrich; and Wulff, Claus,3,549,334.
Schnell, Hermann; Bottenbruch, Ludwig; Schwarz, Hans-Helmut; and Lotter, Hans-Georg,3,530,094.
Schnell, Hermann; Bottenbruch, Ludwig; and Darsow, Gerhard,3,532,759.
Schnell, Hermann; Bottenbruch, Ludwig; Weirauch, Kurt; Hechelhammer, Wilhelm; Streib, Hugo; and Fritz, Gerhard,3,544,514.
Schnell, Hermann; Darsow, Gerhard; and Bottenbruch, Ludwig,3,532,670.
Vernaleken, Hugo; Malamet, Georg; Botta, Artur; Bottenbruch, Ludwig; and Schnell, Hermann,3,547,895.
Vernaleken, Hugo; Wulff, Claus; Bottenbruch, Ludwig; and Schnell, Hermann,3,549,682.

Bottero, Pasquale, to Corporation S.a.s. Bottero & C. Automatic table performing all cutting operations by rational sequences in glassworks producing a continuous glass band. 3,498,513, 3-3-70, Cl. 225-96.5

Bottjer, Martin: *See—*
Carpenter, Joseph D.; and Bottjer, Martin,3,526,400.

Bottjer, Richard E.: *See—*
Johnson, Delp W.; and Bottjer, Richard E.,3,494,092.

Bottjer, William George; and Cox, Norman L., to Du Pont de Nemours, E. I., and Company. Process for improving ferromagnetic properties of chromium dioxide by heating in an oxidizing environment. 3,529,930, 9-22-70, Cl. 23-145.

Bottjer, William George; and Ingersoll, Henry Gilbert, to Du Pont de Nemours, E. I., and Company. Stabilized ferromagnetic chromium dioxide. 3,512,930, 5-19-70, Cl. 23-145.

Bottle, Peter: *See—*
Janssen, Hans-Joachim; and Bottle, Peter,3,546,504.

Bottom, Theodore J. Interlocking panel assembly. 3,524,292, 8-18-70, Cl. 52-522.

Bottomley, Herbert G., to Landis Lund Limited. Machine and conveyor assembly. 3,501,870, 3-24-70, Cl. 51-215.

Bottomley, James: *See—*
Strauss, Richard; and Bottomley, James,3,526,679.
Strauss, Richard; and Bottomley, James,3,527,725.

Bottomley, Stafford Cyril, to Hilger & Watts Limited. Method of and means for surface measurement. 3,523,736, 8-11-70, Cl. 356-156.

Bottomley, William Kelvin, to Honeywell Inc. Transformer having variable number of turns. 3,518,594, 6-30-70, Cl. 336-15.

Bottoms, Garrell C.: *See—*
Morrissey, William M., Jr.; Merryman, Bob D.; and Bottoms, Garrell C.,3,495,416.

Bottoms, Harry Simister, to Lucas, Joseph, (Industries) Limited. Temperature responsive control means for gas turbine engine fuel systems. 3,491,535, 1-27-70, Cl. 60-39.28

Bottoms, Harry Simister, to Lucas, Joseph, (Industries) Limited. Electrically operable trim device for gas turbine engine fuel systems. 3,534,550, 10-20-70, Cl. 60-39.28

Botton, Roger; and Delcoigne, Adrien, to Produits Chimiques Pechiney-Saint-Gobain. Process and apparatus for the preparation of ammonia and chlorine from ammonium chloride. 3,525,590, 8-25-70, Cl. 23-219.

Bottonari, Samuel A., to Westinghouse Electric Corporation. Blowout magnet structure for air-break circuit interrupter. 3,538,279, 11-3-70, Cl. 200-147.

Bottone, Arthur A.: *See—*
Palermo, James J.; and Bottone, Arthur A.,3,496,403.

Bottone, Salvatore, Jr.: *See—*
Vogelsang, Thomas H.; and Bottone, Salvatore, Jr.,3,532,127.

Bottorff, Edmond M.: *See—*
Pfeiffer, Ralph R.; Bottorff, Edmond M.; and Moore, Larry L.,3,497,505.

Bottos, Bela. Hand telephone with transmitter cutout. 3,504,138, 3-31-70, Cl. 179-167.

Botts, Corliss Dean: *See—*
Ecklund, Burneil F.; and Botts, Corliss Dean,3,524,625.

Botts, Marion F.: *See—*
Regel, Erik K.; and Botts, Marion F.,3,502,771.
Regel, Erik K.; and Botts, Marion F.,3,513,233.
Regel, Erik K.; and Botts, Marion F.,3,529,041.
Regel, Erik K.; and Botts, Marion F.,3,549,750.

Botts, William V.; Parkinson, Ronald Y.; and Williams, John S., to North American Rockwell Corporation. Radioisotope heat source. 3,533,913, 10-13-70, Cl. 176-67.

Botwin, Leo; Kabaservice, Thomas P.; and Stettiner, Robert L., to United Aircraft Corporation. Phase interferometer ambiguity resolution system. 3,490,018, 1-13-70, Cl. 343-16.

Botz, Paul, to Mecanto-Bundy GmbH. Apparatus for helically winding a rib on a tube. 3,535,865, 10-27-70, Cl. 57-11.

Bouboulleix, Albert; and Cheze, Rene, to CSF-Compagnie Generale de Telegraphie Sans Fil. Selective loop antenna system for receivers. 3,518,550, 6-30-70, Cl. 325-375.

Bouboulis, Constantine J.; and Wellman, William E., to Esso Research and Engineering Company. High molecular weight flexible polyureas. 3,534,001, 10-13-70, Cl. 260-77.5

Bouchal, Alexander Wayne; and Salzmann, Gerhard M., to Colgate-Palmolive Company. Fluoride dental preparation. 3,531,564, 9-29-70, Cl. 424-52.

Bouchard, Andre C.; Gaudet, Peter W.; and Thomas, Martha J. B., to Sylvania Electric Products, Inc. Electric discharge lamp having a continuous three- dimensional coating on the inner surface of the envelope. 3,544,828, 12-1-70, Cl. 313-109.

Bouchard, Andre C.; Gaudet, Peter W.; and Thomas, Martha J. B., to Sylvania Electric Products, Inc. Manufacturing process for an electric discharge lamp. 3,547,680, 12-15-70, Cl. 117-62.

Bouchard, Edward F.; and Hetzel, Carl P., to Pfizer, Chas., & Co., Inc. Method of improving the shelf-life of yeast-leavened bakery products. 3,535,120, 10-20-70, Cl. 99-91.

Bouchard, Marcel, to Gulf Oil Canada Limited. Preparation of polyvinyl acetate adhesive emulsions. 3,497,521, 2-24-70, Cl. 260-29.6

Bouchard, Nelson Arthur: *See—*
Costello, Joseph Stanley; and Bouchard, Nelson Arthur,3,512,123.

Bouchard, Richard J., to Sanders Associates, Inc. Character display system. 3,533,096, 10-6-70, Cl. 340-324.

Bouchat, Andre, to Ateliers de Constructions Electriques de Charleroi (ACEC). Reversible air conditioning unit. 3,517,527, 6-30-70, Cl. 62-325.

Bouche, Edmund L.; and Parrent, George B., Jr., to Technical Operations, Incorporated. Optical apparatus and method for displaying spatially periodically modulated records. 3,549,237, 12-22-70, Cl. 350-162.

Boucher, Frank G., to Esso Production Research Company. Detection of movement of liquids in the earth. 3,496,768, 2-24-70, Cl. 73-155.

Boucher, Gerald. Multilayer printed circuits. 3,488,429, 1-6-70, Cl. 174-68.5

Boucher, Gerald, to Sanders Associates, Inc. Method of making multilayer printed circuits. 3,509,624, 5-5-70, Cl. 29-624.

Boucher, Harry, to Vance Systems Engineering, Inc. Intermittently actuated recorder. 3,521,292, 7-21-70, Cl. 346-72.

Boucher, John Bradley: *See—*
Kay, Solomon Elijah; and Boucher, John Bradley,3,549,466.

Boucher, Paul D.; and Miller, Joseph C., to International Business Machines Corporation. Vacuum pick-up with air shield. 3,517,958, 6-30-70, Cl. 294-64.

Boucher, Raymond. Play gym construction. 3,503,582, 3-31-70, Cl. 248-370.

Boucherie, Gerard Benoni. Brush manufacturing machine. 3,511,540, 5-12-70, Cl. 300-11.

Boucherle, Robert H.: *See—*
Mentzer, Everett K.; and Boucherle, Robert H.,3,499,649.

Bouchetal de la Roche, Lucien Antoine Regis. Camera shutter. 3,520,240, 7-14-0, Cl. 95-60.

Boucraut, Louis M-J., to Les Fils de Valton & Cie. Arrangement for the automatic drawing in of the chain stitch in the whipping thread on sewing machines. 3,490,403, 1-20-70, Cl. 112-252.

Boucraut, Michel; and Toth, Imre, to Institut de Recherches de la Siderurgie Francaise. Method for treating a fluidized bed of pulverulent material with hot combustion gases. 3,539,293, 11-10-70, Cl. 23-200.

Boudakian, Max M., to Olin Mathieson Chemical Corporation. Alkyl halopyrocarbonates and the preparation thereof. 3,496,209, 2-17-70, Cl. 260-453.

Boudes, Jaques; and Gerometta, Mario. Vehicle anti-fire safety device. 3,518,385, 6-30-70, Cl. 200-61.45

Boudet, Jean. Manufacture of moulds of tempered glass intended for the production of optical and ophthalmic lenses of thermo-setting resins. 3,488,174, 1-6-70, Cl. 65-61.

Boudette, Clayton M.; and Boudette, Laurice F., to Wakefield Engineering Co., Inc. Apparatus for forming heat transfer device. 3,533,270, 10-13-70, Cl. 72-402.

Boudette, Laurice F.: *See—*
Boudette, Clayton M.; and Boudette, Laurice F.,3,533,270.

Boudin, Georges M.: *See—*
Lestienne, Andre F. P.; and Boudin, Georges M.,3,547,023.

Boudon, Robert E. Foot support. 3,504,668, 4-7-70, Cl. 128-80.

Boudouris, Angelo, to Eprad Incorporated. Apparatus for projecting film and the like. 3,508,819, 4-28-70, Cl. 352-199.

Boudreau, Alban M.; and Korol, Stanley F., to Hedstrom Union Company. Foldable carriage and infant seat combination. 3,550,998, 12-29-70, Cl. 280-31.

Boudreau, Robert J., to General Electric Company. Siloxane-oxyalkylene copolymers and use thereof. 3,541,031, 11-17-70, Cl. 260-2.5

Boudreault, Armand: *See—*
Pavilanis, Vytautas; Marois, Paul; Boudreault, Armand; and Gilker, Jean Claude,3,518,347.

Boudry, Jean Claude; Chambon, Marcel; Faugeras, Pierre; Lheureux, Colette; and Talmont, Xavier L. R., to Commissariat a l'Energie Atomique. Processes for simultaneously purifying and concentrating plutonium solutions. 3,533,757, 10-13-70, Cl. 23-341.

Bougaran, Marcel, to Societe des Accumulateurs Fixes et de Traction (Societe Anonyme). Process for welding on electrode current collector. 3,505,121, 4-7-70, Cl. 136-120.

Boughner,Abraham Lewis, to FMC Corporation. Method and apparatus for testing film clarity. 3,527,541, 9-8-70, Cl. 356-202.

Boughton, Olin W., to American Optical Corporation. Lens carriage for continuously variable magnification stereomicroscope. 3,510,202, 5-5-70, Cl. 350-187.

Boughtwood, John E., to Western Union Telegraph Company, The. Polar leg adapter circuit. 3,495,099, 2-10-70, Cl. 307-254.

Boughtwood, John E., to Western Union Telegraph Company, The. Vestigial sideband transmission system having two channels in quadrature. 3,522,537, 8-4-70, Cl. 325-49.

Bougle, Francoise, to Compagnie Generale de Radiologie. X-ray generator tube with graphite rotating anode. 3,539,859, 11-10-70, Cl. 313-330.

Bouhon, Pierre Hubert Marie Joseph, to Societe Anonyme des Ateliers Houget Duesberg Bosson. Apparatus for mixing and automatically emptying cases of fibers or textile materials. 3,503,532, 3-31-70, Cl. 214-309.

Bouhot, Marcel Pierre Alexis. Torque responsive roller clutch. 3,499,511, 3-10-70, Cl. 192-56.

Bouiller, Jean Georges: *See—*
Bauger, Louis Jules; Bouiller, Jean Georges; and Garnier, Michel Robert,3,503,696.
Bauger, Louis Jules; Bouiller, Jean Georges; Garnier, Michel Robert; and Lacroix, Armand Jean-Baptiste,3,524,318.
Bauger, Louis Jules; Bouiller, Jean Georges; and Lacroix, Armand Jean-Baptiste,3,549,272.

Bouiller, Jean Georges; Joubert, Raymond Jean Maurice; Bauger, Louis Jules; and Lacroix, Armand Jean-Baptiste, to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation. Air-supply control arrangement for jet turbine engines. 3,540,221, 11-17-70, Cl. 60-244.

Bouknecht, Max A.: *See—*
Reines, Jose; Bouknecht, Max A.; and Medina, Hector,3,536,846.

Bouladon, Gabriel; and Zuppiger, Paul, to Battelle Development Corporation, The. Continuous and endless passenger transport system. 3,527,169, 9-8-70, Cl. 104-25.

Bouladon, Gabriel: *See—*
Zuppiger, Paul J.; and Bouladon, Gabriel,3,537,540.

Boulay, Henri A.; and Silva, Joseph, to Bostitch Division of Textron, Inc. Apparatus for closing and stapling cartons varying in size. 3,502,256, 3-24-70, Cl. 227-7.

Boule, Wilfred L.; Lowry, Elvery Dean; and Orman, Clifford, to Sylvania Electric Products, Inc. Semiconductor device and method of manufacture. 3,508,124, 4-21-70, Cl. 317-234.

Bouligny, R. H., Inc.: *See—*
Wilson, Robert W., 3,503,137.

Boulogne, Charles, to Societe des Forges et Ateliers du Creusot. Hydroelectric bulb type set having a heat expansion compensator for the upstream support. 3,535,540, 10-20-70, Cl. 290-52.

Boulonne, Andre: *See—*
Bisschops, Johann Heinrich; Steffens, Eduard Marius; and Boulonne, Andre,3,503,773.

Boultinghouse, Harold D., to Phillips Petroleum Company. Reciprocating plastic film splitter. 3,490,664, 1-20-70, Cl. 225-97.

Boultinghouse, Harold D., to Phillips Petroleum Company. Fibrillation of oriented film. 3,491,928, 1-27-70, Cl. 225-3.

Boultinghouse, Harold D., to Phillips Petroleum Company. Retarding evaporation. 3,507,611, 4-21-70, Cl. 21-60.5

Boultinghouse, Harold D., to Phillips Petroleum Company. Molding of cellular structures. 3,513,507, 5-26-70, Cl. 18-30.

Boulton, John: *See—*
Duerksen, John Hugo; Bancroft, Allan Robertson; Hatcher, Stanley Ronald; Boulton, John; and Charlesworth, Donald Hector,3,531,538.
Hatcher, Stanley R.; and Boulton, John,3,508,861.

Boulton Paul Aircraft Limited: *See—*
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Bounds, Ronald W.: *See—*
Dunlop, James D.; and Bounds, Ronald W.,3,539,899.

Bour, Thomas C., to PPG Industries, Inc. Apparatus for producing fiber glass. 3,526,487, 9-1-70, Cl. 65-1.

Bour, Thomas C.; and Shealy, Robert G., to PPG Industries, Inc. Differential pressure control in manufacture of fiber glass fibers. 3,535,096, 10-20-70, Cl. 65-2.

Bourand, Jean: *See—*
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Bourassa, Francis J.; and Greiff, Paul, to Unitrode Corporation. High power semiconductor devices. 3,548,268, 12-15-70, Cl. 317-234.

Bourassa, Hugh A.; Emser, Arthur H.; and Ptak, Edward J., to Acme-Cleveland Corporation. Core receiver table. 3,530,994, 9-29-70, Cl. 211-13.

Bourassa, Hugh A.; Emser, Arthur H.; and Ptak, Edward J., to Acme-Cleveland Corporation. Core receiver assembly. 3,540,608, 11-17-70, Cl. 214-89.

Bourassa, Hugh A.: *See—*
Von Wolff, Herbert H.; and Bourassa, Hugh A.,3,520,347.

Bourbon, Michel L.: *See—*
Pruvost, Pierre A.; Bourbon, Michel L.; and Vialle, Michel,3,489,782.

Bourbon, Regine; Guilhaudis, Andre; and Adenis, Daniel, to Pechiney-Compagnie de Produits Chimiques et Electrometallurgiques. Aluminium-magnesium alloys resistant to blackening and elements formed thereof. 3,519,417, 7-7-70, Cl. 75-147.

Bourdier, Jean-Claude; and De Fels, Philippe, to Audio-Visuel France. Composite optical display system. 3,507,570, 4-21-70, Cl. 353-28.

Bourgault, Pierre L.: *See—*
Henderson, Ian H. S.; Ladan, Stephan G.; and Bourgault, Pierre L.,3,498,893.

Bourgault, Pierre L.; and Batelaan, Joost, to Matthey, Johnson, and Mallory, Ltd. Multi-terminal encapsulated resistance capacitance device. 3,538,394, 11-3-70, Cl. 317-230.

Bourgeas, Pierre. Composite metallic and textile yarn. 3,490,224, 1-20-70, Cl. 57-140.

Bourgeault, Leo B., to Bendix Corporation, The. Unbalanced load protection circuit for AC generator. 3,535,589, 10-20-70, Cl. 317-13.

Bourgeault, Leo B.; and Compoly, Alfred, to Bendix Corporation, The. Unijunction frequency detector. 3,549,954, 12-22-70, Cl. 317-147.

Bourgeault, Leo B.; Wohlberg, Alfred W.; and Compoly, Albert W., to Bendix Corporation, The. SCR battery charger with tunnel diode current controls. 3,527,994, 9-8-70, Cl. 320-39.

Bourgeois, Francis H.: *See—*
Westby, Lloyd R.; and Bourgeois, Francis H.,3,490,295.

Bourgeois, Robert; and Lesure, Adolphe, to Societe dite: Usinor. Method and apparatus for tensile testing of steel bars. 3,545,264, 12-8-70, Cl. 73-103.

Bourgeois, Yves: *See—*
Roussos, Michel; Bourgeois, Yves; and Jasse, Bruno,3,499,868.

Bourget, Joseph A., to Chesapeake Systems Corporation. Single local oscillator for dual conversion system. 3,525,046, 8-18-70, Cl. 325-434.

Bourguignon, Pierre Jules Emile: *See—*
Tosan, Roland Jean Dominique; Arsac, Aime Joseph; Domenech, Fidele; Bourguignon, Pierre Jules Emile; and Kienzle, Jean Andre Paul,3,511,826.

Bourguignon, Pierre, to Les Usines de Melle (Societe Anonyme). Unsaturated polyesters with itaconic acid esters. 3,510,447, 5-5-70, Cl. 260-40.

Bourhenne, Francis K.: *See—*
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Bourke, Donald G.: *See—*
United States of America,National Aeronautics and Space Administration, Administrator, 3,535,696.

Bourke, William T.; Harris, Spencer; and Muff, Tom C., to Harris-Muff, Inc. Method of producing an initial thermal arrest in the cooling curve of hypereutectic cast iron. 3,546,921, 12-15-70, Cl. 73-17.

Bourland, William L. Salt water distillation and condensation system and method. 3,527,675, 9-8-70, Cl. 203-11.

Bourne, Alan A; Chaston, Jack C.; and Darling, Alan S., to Johnson, Matthey & Company Limited. Treatment of metals or alloys. 3,547,712, 12-15-70, Cl. 148-11.5

Bourne, Kenneth Hugh; and Ilkins, John Stanley, to British Petroleum Company Limited, The. Preparation of catalysts. 3,489,692, 1-13-70, Cl. 252-466.

Bourne, Kenneth Hugh: *See—*
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Bourne, Ronald Frederick; and Cheyne, Donald Gordon, to Asbestos Grading Equipment Company (South Africa) (Proprietary) Limited, The. Mills for the comminution of raw material. 3,490,704, 1-20-70, Cl. 241-154.

Bournez, Lucien R.; and Fabre, Robert, to Societe Nouvelle Spidem. Apparatus for varying the forces exerted on work roll chocks in multiroll rolling mills. 3,498,098, 3-3-70, Cl. 72-237.

Bourns, Inc.: *See—*
Geese, Stefan O., 3,531,753.
Geese, Stefan O., 3,531,754.
Michik, Robert D.; Hardison, Wilbur T.; and Sporrong, Robert N., 3,522,572.
Michik, Robert D., 3,522,573.
Michik, Robert D., 3,531,755.
Provance, Jason D., 3,518,209.
Provance, Jason D., 3,551,355.
Teaford, Dawson E., 3,489,931.

Bourns, Richard T.; and McDonald, Lawrence G., to Eastman Kodak Company. Spliced joint in coated web material and method of forming said joint. 3,531,362, 9-29-70, Cl. 161-39.

Bourns, Richard T.; and McDonald, Lawrence T., to Eastman Kodak Company. Method of applying photographic coatings to a moving web with a spliced joint. 3,518,141, 6-30-70, Cl. 156-157.

Bourquardez, Gaston: *See—*
Mouille, Rene; and Bourquardez, Gaston,3,506,219.

Bourque, Edward L.: *See—*
Heft, Eugene J.; and Bourque, Edward L.,3,550,124.

Boursault, Jean: *See—*
Clavelloux, Noel; and Boursault, Jean,3,496,780.

Bousky, Samuel, to Ampex Corporation. Entrant beam optical scanner. 3,520,586, 7-14-70, Cl. 350-6.

Bousso, Dino Edwin. Bellows devices. 3,495,502, 2-17-70, Cl. 92-39.

Boussois-Souchon-Neuvesel: *See—*
Feillet, Antoine, 3,543,978.
Olink, Jan-Theodor, 3,519,412.
Pinel, Francois, 3,518,907.
Silvert, Gerard, 3,493,128.

Bousson, Robert Pierre: *See—*
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Bouteille, Francois: *See—*
Bellot, Roger; Bellot, Jean; Miroir, Jacques; and Bouteille, Francois,3,530,786.

Bouterie, Walter J. Oil pumping system. 3,532,107, 10-6-70, Cl. 137-147.

Bouthors, Pierre Marcel. Traffic systems of vehicles. 3,540,068, 11-17-70, Cl. 14-1.

Bouthors, Pierre: *See—*
Archaux, Francois; and Bouthors, Pierre,3,550,408.

Boutin, Lucien J.: *See—*
Borden, Jay R.; Boutin, Lucien J.; Geis, Everett R.; and Krauthamer, Stanley,3,538,405.

Boutle, David Leonard: *See—*
Hull, Graham Rodney; Sharp, Frank; and Boutle, David Leonard,3,496,000.

Boutmy, Patrick Emile, to Societe Anonyme de Telecommunications. Method and apparatus for regenerating bipolar pulses. 3,492,590, 1-27-70, Cl. 328-164.

Boutros, Richard D. Adjustable pontoons for aerator platform. 3,548,770, 12-22-70, Cl. 114-0.5

Boutsicaris, Stephen P.: *See—*
Hayes, Robert A.; and Boutsicaris, Stephen P.,3,510,462.

Boutsicaris, Stephen P.; and Hayes, Robert A., to Firestone Tire & Rubber Company, The. Process for direct esterification of butadiene polymers and product produced thereby. 3,523,108, 8-4-70, Cl. 260-85.1

Bouvet, Jean; and Cousserans, Gilbert, to Azote et Produits Chimiques S.A. Textile finishing treatment with triazine derivatives. 3,521,996, 7-28-70, Cl. 8-116.3

Bouvier, Guy, to Compagnie Generale d'Electricite. Tap preselector for load switching system. 3,523,240, 8-4-70, Cl. 323-43.5

Bouvier, Jean J., to Ferro Corporation. Abrasive cut-off wheel. 3,513,821, 5-26-70, Cl. 125-15.

Bouvier, Jean J., to Ferro Corporation. Stone polishing wheel for contoured surfaces. 3,517,466, 6-30-70, Cl. 51-358.

Bouvier, Marcel: *See—*
Canon, Raymond; and Bouvier, Marcel,3,512,238.

Bouwers, Albert, to N.V. Optische Industrie 'De Oude Delft'. Device with a night telescope. 3,509,344, 4-28-70, Cl. 250-83.3

Bouwhuis, Gijsbertus: *See—*
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de Lang, Hendrik; Bouwhuis, Gijsbertus; and Ferguson, Eric Tapley,3,514,207.

Bouwhuis, Gijsbertus; and de Lang, Hendrik, to U.S. Philips Corporation, mesne. Gas laser with transverse magnetic field. 3,509,487, 4-28-70, Cl. 331-94.5

Bouwkamp, Burton H., to Chrysler Corporation. Motor vehicle rear window construction. 3,521,403, 7-21-70, Cl. 49-324.

Bouwma, Jan, to U.S. Philips Corporation, mesne. Method of manufacturing magnetic heads. 3,550,264, 12-29-70, Cl. 29-603.

Bouwman, Leendert P.: *See—*
van Douwen, Adolf A.; de Back, Jacobus; Bouwman, Leendert P.; and Kluwen, Herman,3,541,917.

Bouwmeester, Arend Jan, to U.S. Philips Corporation, mesne. Electron beam apparatus having means to selectively utilize a luminescent screen or a photographic plate. 3,529,154, 9-15-70, Cl. 250-49.5

Boux, Joseph F.: *See—*
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Bouyer, Michel, to La Cellophane, Societe Anonyme. Process for packaging and sterilization of bread. 3,542,568, 11-24-70, Cl. 99-173.

Bouyoucos, John V., to General Dynamics Corporation. Acoustic apparatus. 3,516,052, 6-2-70, Cl. 340-12.

Bouyoucos, John V., to United States of America, Navy, mesne. Acoustic impulse source with directional baffle. 3,532,182, 10-6-70, Cl. 181-0.5

Bova, Joseph D.: *See—*
Ardolino, Edward J.; Bova, Joseph D.; and Hoover, Donald P.,3,519,510.

Bovagne, Rene, to Societe des Forges et Ateliers du Creusot. System for the introduction of powdery material into an enclosure containing a gas. 3,539,223, 11-10-70, Cl. 302-36.

Bovagne, Rene; and Deynat, Gerard, to Societe des Forges et Ateliers du Creusot. Self-aligning carrying rollers for heavy rotary bodies, such as rotary kilns. 3,517,915, 6-30-70, Cl. 263-33.

Bovagne, Rene; and Deynat, Gerard, to Societe des Forges et Ateliers du Creusot. System for connecting rotary kiln for treating materials to an installation for preheating the materials via the gases leaving the kiln. 3,537,693, 11-3-70, Cl. 263-33.

Bovard, Robert M., 'Automatic' Sprinkler Corporation of America, mesne. Carbon dioxide absorbent. 3,489,693, 1-13-70, Cl. 252-475.

Bovard, Robert M., to Automatic Sprinkler Corporation of America. Chemical solid state breathing fluid supply system. 3,536,070, 10-27-70, Cl. 128-142.3

Bovard, Robert M., to Automatic Sprinkler Corporation of America, mesne. Oxygen supply system. 3,536,456, 10-27-70, Cl. 23-281.

Bovard, Robert M.; and Simmonds, Milo R., 'Automatic' Sprinkler Corporation of America. Chemical oxygen generator. 3,516,797, 6-23-70, Cl. 23-281.

Bovasso, Bernard X. Quick assembled furniture. 3,547,491, 12-15-70, Cl. 297-442.

Bove, Joseph D.: *See—*
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Bovigny, Marcel. Machine for tying fishing hooks. 3,520,566, 7-14-70, Cl. 289-17.

Bovio, Michele, to Olivetti, Ing. C., & C., S.p.A. Device for controlling the printing of the decimal point in a calculating machine or the like. 3,544,000, 12-1-70, Cl. 235-60.15

Bovio, Robert J.; and Finch, William A., to Sylvania Electric Products, Inc. Vacuum valve. 3,545,722, 12-8-70, Cl. 251-331.

Bovio, Robert J.; and Westlund, Arnold E., Jr., to Sylvania Electric Products, Inc. Vacuum system. 3,545,500, 12-8-70, Cl. 141-65.

Bowar, Raymond L.; and Jenkins, Glenn E., to United States of America, Army, mesne. Transistor circuit having D.C. isolated output transistor. 3,505,534, 4-7-70, Cl. 307-202.

Bowden, Charles M., to Lummus Company, The. Semi-graphic panel. 3,491,459, 1-27-70, Cl. 35-28.

Bowden, Daniel T. R. Hinged barb fishhook. 3,505,756, 4-14-70, Cl. 43-43.16

Bowden, Ernest R.L.: *See—*
Clarke, Trevor G.; Bowden, Ernest R.L.; and Tustin, Oliver A.,3,517,967.

Bowden, George F.; and Cody, David L., to Symons Mfg. Company. Tie rod load indicator. 3,513,803, 5-26-70, Cl. 116-114.

Bowden, Michael; McMahon, James F., Jr.; and Kreske, Gerald H., to Bradley Metal Company, The. Apparatus for making metal bodies. 3,512,575, 5-19-70, Cl. 164-157.

Bowdey, Raymond D.; and VanVorous, Theodore, to Dow Chemical Company, The. Apparatus for supplying metal to an evaporation source in a metallizing operation. 3,545,647, 12-8-70, Cl. 221-81.

Bowdil Company, The: *See—*
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Bowditch, Hoel L., to Roxboro Company, The. Pneumatic indicator-recorder. 3,521,297, 7-21-70, Cl. 346-139.

Bowditch, Hoel L.; William, George F.; and Bertone, Richard A., to Foxboro Company, The. Tilt-ring pneumatic control device. 3,515,162, 6-2-70, Cl. 137-86.

Bowditch, Hoel L.; and Williams, George F., to Foxboro Company, The. Fluid instrument receiver-transmitter. 3,525,351, 8-25-70, Cl. 137-85.

Bowditch, Hoel L.: *See—*
Williams, George F.; and Bowditch, Hoel L.,3,499,464.
Williams, George F.; and Bowditch, Hoel L.,3,516,691.

Bowe Bohler & Weber K. G., Firma: *See—*
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Bowe, Bohler & Weber KG: *See—*
Fuhring, Heinrich; and Sieber, Johannes Helmut, 3,538,615.

Bowen, Burlie R.: *See—*
Goodwin, Joe E.; and Bowen, Burlie R.,3,533,390.

Bowen, Edward K.; Smith, Philip A.; and Donelson, Kenneth N., to Federal Mogul Corporation. Oil seal with rock shield and wear sleeve. 3,510,138, 5-5-70, Cl. 277-35.

Bowen, Eldred W.: *See—*
Finley, Roy D.; Flanigan, James D.; and Bowen, Eldred W.,3,511,022.
Finley, Roy D.; Flanigan, James D.; and Bowen, Eldred W.,3,542,567.

Bowen, Eldred W., to Pet Incorporated. Method and apparatus for closing containers. 3,517,476, 6-30-70, Cl. 53-37.

Bowen, G. L., and Co.: *See—*
Bowen, Thomas C., 3,550,328.

Bowen, Gwynne: *See—*
Reed, Alun John; and Bowen, Gwynne,3,512,768.

Bowen, Henry D.; and Splinter, William E. Electrostatic nozzle. 3,516,608, 6-23-70, Cl. 239-15.

Bowen, Henry D.; and Stanley, Charles P., Jr., said Stanley assor. to said Bowen. Separator having adjustable louvers with cleaning means therefor. 3,550,357, 12-29-70, Cl. 55-270.

Bowen, Henry D.: *See—*
Stanley, Charles P., Jr.; and Bowen, Henry D.,3,538,688.

Bowen, Jack L., to Johnson, E. F., Company. Variable capacitors. 3,521,135, 7-21-70, Cl. 317-249.

Bowen, Jack L.; and Chace, Richard L., to General Electric Company. Miniature industrial limit switch. 3,539,738, 11-10-70, Cl. 200-47.

Bowen, James H.: *See—*
Calvert, William L.; and Bowen, James H.,3,494,526.

Bowen, John T.: *See—*
Hill, George A.; and Bowen, John T.,3,508,317.

Bowen, Kenneth Samuel. Photographic copying apparatus. 3,522,991, 8-4-70, Cl. 355-83.

Bowen, Kermit A. Instrument for inscribing an ellipse. 3,521,361, 7-21-70, Cl. 33-30.

Bowen, Lawrence H., III; and Sellers, Jerry W., to Rockwell Manufacturing Company. Electrically powered hand tool. 3,536,943, 10-27-70, Cl. 310-50.

Bowen, Lonnie E., to American Air Filter Company, Inc. Collapsible hood assembly. 3,520,115, 7-14-70, Cl. 55-422.

Bowen, Marvin, 33 1/3 to Pruitt, William R. Mower cutting blade. 3,500,622, 3-17-70, Cl. 56-295.

Bowen, Neil, to Inland Steel Company. Automatic apparatus and method for applying closures to containers. 3,540,181, 11-17-70, Cl. 53-3.

Bowen, Rafael L., to United States of America, Health, Education, and Welfare. Ternary eutectic dimethacrylate monomer system and restorative dental material prepared therefrom. 3,539,526, 11-10-70, Cl. 260-41.

Bowen, Richard E.; and Lake, Paul V., to Lilly, Eli, and Company. Method for improving weight gains and reducing gross lesions in chickens exposed to Marek's disease. 3,548,054, 12-15-70, Cl. 424-89.

Bowen, Richard L., Jr. Mixing device. 3,499,633, 3-10-70, Cl. 259-95.

Bowen, Stuart F. Sanding block. 3,510,991, 5-12-70, Cl. 51-372.

Bowen, Thomas C., to Bowen, G. L., and Co. Helical gear grinder machine. 3,550,328, 12-29-70, Cl. 51-232.

Bowen, William H.; and Ferril, Homer E., to Dresser Industries, Inc. Safety relief valve with pressure compensating skirt. 3,520,326, 7-14-70, Cl. 137-477.

Bower, Arnold B., Jr., to General Electric Company. Cutter bit. 3,493,268, 2-3-70, Cl. 299-86.

Bower, Bernal L. Ballistics embedment anchors. 3,520,268, 7-14-70, Cl. 114-206.

Bower, George M., to Westinghouse Electric Corporation. Aromatic polyimides containing both acetamide and carboxylic acid radicals and crosslinked polymers of same. 3,526,610, 9-1-70, Cl. 260-65.

Bower, Hadley H., Jr., to Western Electric Company, Incorporated. Magnetic bounce eliminator. 3,538,648, 11-10-70, Cl. 51-99.

Bower, Harvey S.: *See—*
Bardsley, Robert F.; Bower, Harvey S.; and Katz, Saul,3,543,411.

Bower, Ray B. Conduit joint assembly. 3,503,636, 3-31-70, Cl. 285-305.

Bower, Richard Raymond, to International Telephone and Telegraph Corporation. Flash bulb assembly apparatus. 3,516,130, 6-23-70, Cl. 29-25.19

Bower, Richard R., to Leach Corporation. Apparatus for positioning parts. 3,495,316, 2-17-70, Cl. 29-208.

Bower, Robert W.: *See—*
Mankarious, Ramzy G.; Bower, Robert W.; and Ying, Robert S.,3,509,428.

Bower, Robert W., to Hughes Aircraft Company. Method of irradiating dielectric-coated semiconductor bodies with low energy electrons. 3,507,709, 4-21-70, Cl. 148-1.5

Bower, Robert W., to Hughes Aircraft Company. Method of utilizing an ion beam to form custom circuits. 3,533,158, 10-13-70, Cl. 29-571.

Bower, Robert W.; and Dill, Hans G., to Hughes Aircraft Company. IGFET with offset gate and bi-conductivity channel region. 3,534,235, 10-13-70, Cl. 317-235.

Bower, Robert W.; and Shifrin, Gordon A., to Hughes Aircraft Company. Method of making field-effect device with insulated gate. 3,514,844, 6-2-70, Cl. 29-571.

Bower, Robert W.; and Shifrin, Gordon A., to Hughes Aircraft Company. Method of making bipolar transistor devices. 3,523,042, 8-4-70, Cl. 148-1.5

Bower, Wayne O., Jr. Necktie holder. 3,494,003, 2-10-70, Cl. 24-49.

Bowerman, Bill H.; Thaxton, Ellis B.; Britton, Fred G.; and Richardson, Murl R., to Oil States Rubber Co. Rupturable seal assembly for piling guides. 3,533,241, 10-13-70, Cl. 61-46.5

Bowers, Alan R.; and Milne, David T., to Mosinee Paper Mills Company. Fungus-resistant paper containing metallic quinolinolate formed in situ and process thereof. 3,493,464, 2-3-70, Cl. 162-161.

Bowers, Clarence A.; and Chantrey, Graham, to Monsanto Company. Method of treating fabrics. 3,539,286, 11-10-70, Cl. 8-115.5

Bowers, David L.; and Fisher, David C., to General Electric Company. Threshold analyzer for an implanted heart stimulator. 3,517,663, 6-30-70, Cl. 128-2.06

Bowers, Frederic M.: *See—*
Mueller, Carl E.; Bowers, Frederic M.; and Jacobs, Robert G.,3,535,164.

Bowers, Ian Frederick: *See—*
Butler, Roger David; Bowers, Ian Frederick; and Colley, Cedric Charles Edward,3,529,457.
Butler, Roger David; Bowers, Ian Frederick; and Colley, Cedric Charles Edward,3,529,458.
Butler, Roger David; Bowers, Ian Frederick; and Colley, Cedric Charles Edward,3,537,916.

Bowers, John O., Jr.; Ray, Jon Philip; and Toney, Philip A., to General Dynamics Corporation. Analog-to-digital converter. 3,509,560, 4-28-70, Cl. 340-347.

Bowers, Rudolph M. Butterfly valve. 3,498,584, 3-3-70, Cl. 251-305.

Bowers, Russell E., to Avco Corporation. Inertia impact firing mechanism for munitions having retarding means. 3,511,184, 5-12-70, Cl. 102-78.

Bowers, Russell L.; and Napier, Larry E., to Hamilton Cosco, Inc. Electrolytic stripping of nonferrous metal from a ferrous metal base. 3,492,210, 1-27-70, Cl. 204-146.

Bowers, Theron L., to International Telephone and Telegraph Corporation. Homogeneous matrix switching network. 3,529,097, 9-15-70, Cl. 179-18.

Bowers, Thomas S. Clippers. 3,497,956, 3-3-70, Cl. 30-28.

Bowers, Thomas S. Anchor. 3,505,969, 4-14-70, Cl. 114-208.

Bowers, Virginia S.; Breazeale, Francis B.; and Rice, Charles M., to American Enka Corporation. Torque yarn. 3,500,628, 3-17-70, Cl. 57-140.

Bowers, William E., to Schlumberger Technology Corporation. Methods and apparatus for determining depth in boreholes. 3,490,149, 1-20-70, Cl. 33-133.

Bowers, William E., to Schlumberger Technology Corporation. Method and apparatus for manufacturing electrical conductors. 3,544,665, 12-1-70, Cl. 264-40.

Bowers, William H., to Thomas, Arthur H., Company. Gas weighing apparatus. 3,493,063, 2-3-70, Cl. 177-145.

Bowersox, Joseph W., to Terra Engineering Company, Inc. Pop up traffic divider. 3,530,775, 9-29-70, Cl. 94-1.5

Bowes, Margery W.: *See—*
Bowes, Urban E.,3,528,911.

Bowes, Urban E., deceased0 (by Bowes, Margery W.; executrix). Method and apparatus for purifying water. 3,528,911, 9-15-70, Cl. 210-1.

Bowie, Philip A.; and Bragg, Edward A., to Maremont Corporation. Bobbin clutch for textile spindle assembly. 3,544,026, 12-1-70, Cl. 242-46.6

Bowie, Raymond Alexander; and Grant, Mervyn Stewart, to Imperial Chemical Industries Limited. Esters of 6-alkenyloxy-7-substituted-alkoxy-4- hydroxyquinoline-3-carboxylic acids. 3,534,043, 10-13-70, Cl. 260-287.

Bowin, Richard E., to Union Special Machine Company. Sewing machine with improved throat plate and feed dog construction. 3,491,710, 1-27-70, Cl. 112-215.

Bowin, Richard E., to Union Special Machine Company. Sewing machine for attaching articles to workpieces. 3,509,838, 5-5-70, Cl. 112-110.

Bowker, Anthony J., to Square D Company. Fail-safe metal detector remotely powered and monitored through a cable. 3,521,184, 7-21-70, Cl. 331-65.

Bowker, John Kent, to Itek Corporation. Color printing lamp systems. 3,514,200, 5-26-70, Cl. 355-1.

Bowker, John Kent, to Itek Corporation. Apparatus for measuring optical density. 3,528,749, 9-15-70, Cl. 356-202.

Bowker, John Kent; Hughes, Jerry G.; and Stasey, Charles M., to Itek Corporation. Automatic printer systems. 3,519,347, 7-7-70, Cl. 355-88.

Bowker, John Kent; Hughes, Jerry Glenn; and Stasey, Charles M., to Itek Corporation. Color concentration discriminators. 3,527,540, 9-8-70, Cl. 356-175.

Bowler, William; and Berthiaume, Pierre P., to Canadian National Railway Company. Mechanically activated magnetic electric switch. 3,551,619, 12-29-70, Cl. 200-61.41

Bowles, Donald C., to Elliott Brothers (London) Limited. Amplitude regulated oscillator high voltage source. 3,533,010, 10-6-70, Cl. 331-75.

Bowles Engineering Corporation: *See—*
Bauer, Peter, 3,500,852.
Bauer, Peter; and Sowers, Edwin U., III, 3,503,411.
Bowles, Romald E., 3,509,896.
Bowles, Romald E., 3,544,170.
Bowles, Romald E., 3,545,068.
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Colston, John R., 3,520,316.
Di Camillo, Carmine V., 3,495,775.
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Du Brueler, Ralph, Jr., 3,490,478.
Edell, Ira C., 3,503,423.
Freeman, Peter A.; and Bean, Robert A., 3,545,468.
Jones, Donnie R., 3,503,409.
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O'Neill, William C., 3,527,403.
Sowers, Edwin U., III, 3,542,050.

Bowles, Richard S.; and Hurst, Charles W., to Procter & Gamble Company, The. Blow-molding of plastic containers with internal reinforcing structure. 3,535,411, 10-20-70, Cl. 264-98.

Bowles, Romald E., to United States of America, Army. Gyroscopic fluid control device. 3,509,778, 5-5-70, Cl. 74-5.6

Bowles, Romald E., to Bowles Engineering Corporation. Electro-thermal transducer. 3,509,896, 5-5-70, Cl. 137-81.5

Bowles, Romald E. Self-adaptive systems. 3,542,048, 11-24-70, Cl. 137-81.5

Bowles, Romald E., to Bowles Engineering Corporation. Pure fluid valving of suspended solids. 3,544,170, 12-1-70, Cl. 302-28.

Bowles, Romald E., to Bowles Engineering Corporation. Pressure amplification. 3,545,068, 12-8-70, Cl. 29-421.

Bowles, Romald E., to Bowles Engineering Corporation. Fluid operated valve. 3,545,466, 12-8-70, Cl. 137-81.5

Bowles, Vernon O.; and Penick, Joe E., to Mobil Oil Corporation. Catalytic hydrocracking process employing ascending reaction temperatures. 3,528,908, 9-15-70, Cl. 208-89.

Bowles-Benford: *See*—
Benford, Konrad H., 3,500,326.

Bowling, Carlton L., to C. & L. Machine Shop, Inc. Cut-off tool assembly. 3,497,935, 3-3-70, Cl. 29-96.

Bowling, Carlton L., to C. & L. Machine Shop, Inc. Cut-off tool holder. 3,531,842, 10-6-70, Cl. 29-96.

Bowling, Dan P. Lock assembly. 3,521,922, 7-28-70, Cl. 292-264.

Bowman, Bernard W.; and Bowman, Ruth W. Toilet ventilating device. 3,533,111, 10-13-70, Cl. 4-211.

Bowman, Cadet E.; and Rohde, William J., to Olin Corporation, mesne. Camp stove and burner construction therefor. 3,538,907, 11-10-70, Cl. 126-38.

Bowman, Clement W.: *See*—
Bichard, John A.; and Bowman, Clement W.,3,522,168.

Bowman, Clement W., 30% to Cities Service Athabasca, Inc., 30% to Imperial Oil Limited, 30% to Atlantic Richfield Corporation, and 10% to Royalite Oil Company Limited. Separating apparatus. 3,521,755, 7-28-70, Cl. 210-520.

Bowman, Clyde L.: *See*—
De Good, Maynard J.; and Bowman, Clyde L.,3,508,640.

Bowman, Clyde L.; and Rottschafer, Dick O., Jr. Serving tray-receptacle combination. 3,502,042, 3-24-70, Cl. 108-46.

Bowman, Dale W., to United States of America, Navy. Digital data deflection projection apparatus. 3,547,527, 12-15-70, Cl. 350-285.

Bowman, David F., to RCA Corporation. Antenna arrays with elements aperiodically arranged to reduce grating lobes. 3,524,188, 8-11-70, Cl. 343-754.

Bowman, Dean C.: *See*—
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Bowman, Donald B. Hemodialysis method and equipment. 3,515,275, 6-2-70, Cl. 210-22.

Bowman, Douglas F.: *See*—
Bosworth, Melvin B.; Bowman, Douglas F.; Sparkes, Harry P.; and Young, Clarence A.,3,518,617.
Sparkes, Harry P.; Bowman, Douglas F.; and Pusateri, Anthony J., Jr.,3,518,615.

Bowman Enterprises, Inc.: *See*—
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Bowman, Vernon D., 3,530,806.

Bowman, Francis; Cooper, Albert Charles; Irving, Francis; Livingston, Alistair; White, David Frederick; and Wilkinson, Donald Graham, to Imperial Chemical Industries Limited. Process for coloring linear polyesters with a dyestuff which is free from sulphonic acid groups. 3,489,713, 1-13-70, Cl. 260-40.

Bowman, George Edward; and Weaving, George Stewart, to National Research Development Corporation. Apparatus for detecting gases. 3,544,278, 12-1-70, Cl. 23-254.

Bowman, Glenn K.; and Fitting, Paul E., to Allis-Chalmers Manufacturing Company. Twin seal butterfly valve. 3,532,321, 10-6-70, Cl. 251-175.

Bowman, Harold L., to Farrington Electronics, Inc. Document spacing control apparatus. 3,490,687, 1-20-70, Cl. 234-28.

Bowman, Howard C., to Bell Telephone Laboratories, Incorporated. Linear sweep wave generator employing grid emission current of electron discharge device. 3,532,998, 10-6-70, Cl. 328-182.

Bowman, Joe, to Scott & Fetzer Company, The, mesne. Housing construction. 3,495,024, 2-10-70, Cl. 174-52.

Bowman, Joe; and Baber, Lowell Keith, to Scott & Fetzer Company, The, mesne. Interval timer. 3,546,557, 12-8-70, Cl. 318-484.

Bowman, John H., to U.S. Industries, Inc. Self-centering bushing. 3,515,417, 6-2-70, Cl. 287-52.04

Bowman, Malcolm C.: *See*—
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Bowman, Mark M., Jr., to Phillips Petroleum Company. Bag. 3,490,680, 1-20-70, Cl. 229-53.

Bowman, Raymond D., to Seeburg Corporation, The. Vending cycle control circuit. 3,529,707, 9-22-70, Cl. 194-10.

Bowman, Richard C.; Lang, Edward J.; and Grazen, Frank S., to Hooker Chemical Corporation. Phenol-formaldehyde-urea resin binder for solid particles. 3,539,484, 11-10-70, Cl. 260-29.3

Bowman, Robert S., to St. Joseph Lead Company. Electrically conductive zinc oxide. 3,509,073, 4-28-70, Cl. 252-518.

Bowman, Robert S., to St. Joseph Lead Company. Electrically conductive zinc oxide. 3,515,686, 6-2-70, Cl. 252-512.

Bowman, Robert S., to St. Joseph Lead Company. Electrically conductive zinc oxide. 3,538,022, 11-3-70, Cl. 252-518.

Bowman, Robert S., to St. Joseph Lead Company. Electrically conductive zinc oxide. 3,538,023, 11-3-70, Cl. 252-518.

Bowman, Robert S., to St. Joseph Lead Company. Electrically conductive zinc oxide. 3,541,029, 11-17-70, Cl. 252-519.

Bowman, Robert S., to St. Joseph Lead Company. Treatment of zinc oxide. 3,551,356, 12-29-70, Cl. 252-518.

Bowman, Ronald James; and Hine, Alexander Edward, to Ampex Corporation. Tape transport. 3,529,787, 9-22-70, Cl. 242-189.

Bowman, Russell L.: *See*—
Delaney, Charles L.; Quigley, Richard E.; Bane, Ronald L.; Medisch, George N.; and Bowman, Russell L.,3,490,520.

Bowman, Ruth W.: *See*—
Bowman, Bernard W.; and Bowman, Ruth W.,3,533,111.

Bowman, Spencer, to Rotek Incorporated. Fluid drive for high inertia loads. 3,535,945, 10-27-70, Cl. 74-129.

Bowman, Spencer; and Nevulis, Anthony, said Nevulis assor. to said Bowman. Reciprocating pump. 3,530,771, 9-29-70, Cl. 92-140.

Bowman, Vernon D., to Bowman Enterprises, Inc. Incinerator. 3,530,805, 9-29-70, Cl. 110-8.

Bowman, Vernon D., to Bowman Enterprises, Inc. Incinerator. 3,530,806, 9-29-70, Cl. 110-8.

Bowman, Warren; Roberts, Dennis M.; and Seliger, Paul G., to Du Pont de Nemours, E. I., and Company. Lacquer compositions containing nitrocellulose, an ethylene/vinyl acetate copolymer and an ester component. 3,503,909, 3-31-70, Cl. 260-17.

Bowmar Instrument Corporation: *See*—
Harden, Phillip L.; and Thomas, Samuel M., Jr., 3,546,673.

Bown, Delos E.; Neureiter, Norman P.; Schutze, Henry G.; and Williams, Herschel C., to Humble Oil & Refining Company. Novel polycarbonates. 3,510,507, 5-5-70, Cl. 260-463.

Bown, Delos E.: *See*—
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Bownass, Norris, to Ether Limited. Fluid-controlling valve means. 3,538,951, 11-10-70, Cl. 137-614.21

Bowser, Inc.: *See*—
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Topol, George J., 3,510,666.
Topol, George J., 3,544,798.
Topol, George J.; and Carr, Larry R., 3,551,670.

Bowsher, James R.: *See*—
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Box, E. O., Jr.: *See*—
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Hepp, Harold J.; and Box, E. O., Jr.,3,539,651.

Box, Glenn D., to Monogram Industries, Inc. Speed reduction mechanism. 3,513,724, 5-26-70, Cl. 74-750.

Box, Max L.; and Heacock, Peter A., to United States of America, Navy. Device for verification of linear deviation of a frequency modulated signal. 3,521,176, 7-21-70, Cl. 328-141.

Box, Theodor. Collapsible plastic case. 3,497,127, 2-24-70, Cl. 229-30.

Boxal Beaurepaire, S.A.: *See*—
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Boxal-Beaurepaire S.A.: *See*—
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Boxall, Edward R., to British Aircraft Corporation, Limited. Fluid flow simulation apparatus. 3,551,694, 12-29-70, Cl. 307-229.

Boxall, Frank Stuart, to Vicom Corporation. Output circuit for pulse code modulation time sharing system. 3,524,938, 8-18-70, Cl. 179-15.

Boxmeyer, William D., to Morrison Machine Company. Apparatus for controlling calenders. 3,521,551, 7-21-70, Cl. 100-47.

Boy, Peter, to Schubert & Salzer. Yarn severing device for circular knitting machine. 3,488,679, 1-6-70, Cl. 66-134.

Boyadjieff, George I.; and Verge, Kenneth W., to Bendix Corporation, The. Fluid actuated actuator. 3,516,765, 6-23-70, Cl. 418-61.

Boyajian, Joseph J., to United States of America, Navy. Linear wide band discriminator. 3,546,609, 12-8-70, Cl. 329-140.

Boyajian, Myron J., to Allis-Chalmers Manufacturing Company. Seat operated power cutoff time delay. 3,500,946, 3-17-70, Cl. 180-101.

Boyajian, Myron J., to Allis-Chalmers Manufacturing Company. Vehicle directional switch and seat switch interlock. 3,507,350, 4-21-70, Cl. 180-101.

Boyajian, Myron J.: *See*—
Karazija, Arvin; and Boyajian, Myron J.,3,512,072.

Boyanich, Milan, Sr. Rearview mirror wiper. 3,526,920, 9-8-70, Cl. 15-250.29

Boyanton, Walter Lee; Mc Allister, Robert J.; and Rhodes, Joe H., to Gibraltar Fence Co., Inc. Device for attaching a rail to a fence post. 3,524,627, 8-18-70, Cl. 256-65.

Boyce, Alden C., to Rota-Matic, Inc. Rotational casting apparatus. 3,492,697, 2-3-70, Cl. 18-26.

Boyce, Allan Harry: *See*—
Brandon, Percy Samuel; and Boyce, Allan Harry,3,530,408.

Boyce, Elvin L.; and Cox, Paul W., to Elbo File Control Systems, Incorporated. Article storage and inspection file and file cabinet. 3,489,475, 1-13-70, Cl. 312-183.

Boyce, Elvin L.; and Cox, Paul W., to Elbo File Control Systems, Incorporated. Article-holding clip and method of producing same. 3,526,935, 9-8-70, Cl. 24-84.

Boyce, Frederick C., to Plessey Company Limited, The. Seat adjusting arrangements. 3,501,198, 3-17-70, Cl. 297-373.

Boyce, Guy Baron, to Binks-Bullows Limited. Article detecting device. 3,517,641, 6-30-70, Cl. 118-2.

Boyce, Thomas H., Jr., to Stewart & Stevenson Services, Inc. Rotary table power unit. 3,543,650, 12-1-70, Cl. 173-43.

Boyce, Thomas H., Jr.; and Mitchell, Robert W., to Stewart & Stevenson Services, Inc. Apparatus for increasing blower air pressure in scavenging diesel engines. 3,540,421, 11-17-70, Cl. 123-65.

Boyce, Walter A., to Westinghouse Electric Corporation. Basing cement for electric lamps and similar devices and stress-relieving base structure utilizing such cement. 3,525,898, 8-25-70, Cl. 313-318.

Boyce, William B.; and Brezinski, Jerome P., to Beloit Corporation. Headbox method and means for blending of multiple jets. 3,514,372, 5-26-70, Cl. 162-216.

Boyd, Branin A.: *See*—
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Boyd, Charles H., to Western Electric Company, Incorporated. System for selectively connecting an electrical device to a test set. 3,539,918, 11-10-70, Cl. 324-62.

Boyd, Charles L., to Halliburton Company. Magnetic turbine flowmeter. 3,534,602, 10-20-70, Cl. 73-231.

Boyd, Clinton A., to Borg-Warner Corporation. Bearing arrangement for electric motors. 3,506,861, 4-14-70, Cl. 310-90.

Boyd, Clinton A., to Borg-Warner Corporation. Bearing arrangement for electric motors. 3,550,975, 12-29-70, Cl. 308-237.

Boyd, Clinton A., to Borg-Warner Corporation. Submersible motor and bearing arrangement therefor. 3,551,714, 12-29-70, Cl. 310-87.

Boyd, Clinton A.; Beavers, John A.; and Drake, Eldon L., to Borg-Warner Corporation. Submersible motor seal section. 3,502,919, 3-24-70, Cl. 310-87.

Boyd, David M., Jr., to Universal Oil Products Company. Chromatograph output system suitable for use with process control. 3,501,700, 3-17-70, Cl. 328-127.

Boyd, David M., to Universal Oil Products Company. Apparatus for locating the interface between two superimposed fluids within a vessel utilizing infrared detector means. 3,499,154, 3-3-70, Cl. 250-83.3

Boyd, Donald E.: *See*—
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Boyd, John Allison; and Boyd, Donald E.,3,495,555.

Boyd, Donald R., to Allis-Chalmers Manufacturing Company. Arc chute. 3,511,950, 5-12-70, Cl. 200-144.

Boyd, Douglas; and Brown, George James, to Chalmers, Andrew, & Mitchell Limited. Ship's trim indicator. 3,548,400, 12-15-70, Cl. 340-282.

Boyd, Edward S.; Mallory, Mason; and Skinner, Loren R., to Turbo-Circle-Wing, Inc. Vertical takeoff and landing aircraft. 3,519,224, 7-7-70, Cl. 244-23.

Boyd, Gary D.; Johnston, Wilbur D., Jr.; and Kaminow, Ivan P., to Bell Telephone Laboratories, Incorporated. Optical Raman oscillator. 3,536,931, 10-27-70, Cl. 307-88.3

Boyd, Gary D.; and Kleinman, David A., to Bell Telephone Laboratories, Incorporated. Nonlinear optical devices employing optimized focusing. 3,530,301, 9-22-70, Cl. 307-88.3

Boyd, James A.; and Pflugfelder, Reinhold G., to Motorola, Inc. FET waveform generator. 3,493,781, 2-3-70, Cl. 307-229.

Boyd, James W.: *See*—
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Bessett, Clifford H.; and Boyd, James W.,3,531,039.

Boyd, John A.; and Boyd, Donald E., to Washington Incinerator Sales & Service, Inc. Method and apparatus for incinerating thermoplastic materials. 3,490,395, 1-20-70, Cl. 110-18.

Boyd, John Allison; and Boyd, Donald E., to Washington Incinerator Sales & Service, Inc. Plastics incinerator. 3,495,555, 2-17-70, Cl. 110-8.

Boyd, John H.; and Paladino, Anthony M., to Timberjack Machines Limited. Timber harvester. 3,531,235, 9-29-70, Cl. 144-2.

Boyd, Joseph Emmett. Ladders. 3,504,766, 4-7-70, Cl. 182-104.

Boyd, Joseph Emmett. Ladders. 3,504,768, 4-7-70, Cl. 182-152.

Boyd, Robert E. Cuff aligning device. 3,501,069, 3-17-70, Cl. 223-2.

Boyd, Robert N.; Colin, Lawrence; and Kaufman, Edward G., to Dentisply International Inc., mesne. Dental filling composition of a coefficient of thermal expansion approximating that of natural tooth enamel. 3,503,128, 3-31-70, Cl. 32-15.

Boyd, Warren E.: *See*—
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Boyd, Wilbur N., to Carnation Company. Cap rejector. 3,518,744, 7-7-70, Cl. 29-208.

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Boyd, Zane R. Folding crutch. 3,492,999, 2-3-70, Cl. 135-49.

Boyden, Willis Guild. Monostable multivibrator circuit for generating voltage variable pulse widths over wide ranges. 3,531,661, 9-29-70, Cl. 307-273.

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Tepper, Sidney; Boydman, Hyman P.; and Bonanno, Joseph L.,3,514,108.
Bonanno, Joseph L.; Tepper, Sidney; and Boydman, Hyman,3,514,899.
Bonanno, Joseph L.; Tepper, Sidney; and Boydman, Hyman,3,521,014.

Boye, Frederick C.: *See*—
Bement, Elmore L.; and Boye, Frederick C.,3,509,202.

Boye Needle Company, The: *See*—
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Boyenval, Bernard: *See*—
Jordan, Michel; Boyenval, Bernard; Tanguy, Jean-Louis; Zajac, Edmond; and Sandre, Georges,3,534,938.

Boyer, Ambroise O. Windshield molding removal tool. 3,508,319, 4-28-70, Cl. 29-235.

Boyer, Andre F., to Charbonnages de France. Slightly graphitizable carbons and a method for their production. 3,532,463, 10-6-70, Cl. 23-209.2

Boyer, Carl: *See*—
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Boyer, Charles B.; and Conaway, Robert M., to Battelle Development Corporation, The. Isostatic pressure transmitting apparatus and method. 3,523,148, 8-4-70, Cl. 264-88.

Boyer, Charles Benjamin, to Crucible Inc. Apparatus for rapid fluid compacting. 3,543,345, 12-1-70, Cl. 18-16.

Boyer, Gary W., to Hoerner Waldorf Corporation. Variable size container. 3,521,810, 7-28-70, Cl. 229-23.

Boyer, Gary W., to Hoerner Waldorf Corporation. Voting booth. 3,531,170, 9-29-70, Cl. 312-259.

Boyer, George A.: *See*—
Prout, James H.; and Boyer, George A.,3,543,175.

Boyer, Jackson S.; and Cassar, Richard D., to Sun Oil Company. Alpha-olefin polymers having improved ultraviolet stability. 3,511,806, 5-12-70, Cl. 260-45.85

Boyer, Jackson S.; and Cassar, Richard D., to Sun Oil Company. Ultraviolet stabilized petroleum hydrocarbons. 3,518,196, 6-30-70, Cl. 252-56.

Boyer, Jackson S.; and Cassar, Richard D., to Sun Oil Company. Polymethylated muconic acids and phosphite esters synergistic stabilizer combination for elastomer composition. 3,518,225, 6-30-70, Cl. 260-45.85

Boyer, Jackson S.; and Cassar, Richard D., to Sun Oil Company. Plastic vinyl chloride surface coverings of improved ultraviolet stability. 3,541,047, 11-17-70, Cl. 260-45.85

Boyer, Jackson S.; and Cassar, Richard D., to Sun Oil Company. Latex stabilized with salts of polymethylated muconic acids. 3,544,502, 12-1-70, Cl. 260-29.7

Boyer, Jackson S.; and Cassar, Richard D., to Sun Oil Company. Ultraviolet stabilized elastomeric composition. 3,547,880, 12-15-70, Cl. 260-45.85

Boyer, Jackson S.; and Didot, Francois E., to Sun Oil Company. Antichecking wax for rubber. 3,496,125, 2-17-70, Cl. 260-4.

Boyer, James F.; and Kroll, Alfred E., to Wheelabrator Corporation, The. Furnace ventilation system. 3,533,611, 10-13-70, Cl. 266-15.

Boyer, James H., Jr., to North American Rockwell Corporation. Needle picker control means for circular knitting machines. 3,535,893, 10-27-70, Cl. 66-48.

Boyer, James H., Jr.; and Janda, Richard M., to North American Rockwell Corporation. Method of closing the toe of a tubular stocking. 3,548,614, 12-22-70, Cl. 66-95.

Boyer, James: *See*—
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Boyer, Jean-Jacques. Railroad repairing machine. 3,494,299, 2-10-70, Cl. 104-8.

Boyer, John L., to International Rectifier Corporation. Pressure-assembled semiconductor device having a plurality of semiconductor wafers. 3,532,941, 10-6-70, Cl. 317-234.

Boyer, John L., to International Rectifier Corporation. Pressure-assembled semiconductor device housing having three terminals. 3,532,942, 10-6-70, Cl. 317-234.

Boyer, Laurance E. Retractable support post for containers. 3,527,355, 9-8-70, Cl. 211-71.

Boyer, Myron H.: *See*—
Basford, Paul R.; and Boyer, Myron H.,3,547,701.

Boyer, Nicodemus E.; and Weaver, Marvin P., to Borg-Warner Corporation. Process for the manufacture of 4-vinylcyclohexene. 3,526,672, 9-1-70, Cl. 260-666.

Boyer, Pierre; and Blumer, Hans, to Condensateurs Fribourg S.A. Electric condenser with resistance incorporated therein. 3,513,368, 5-19-70, Cl. 317-256.

Boyer, Robert H.: *See*—
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Boyer, Simone L.; and Pichon, Lucienne S., to Eastman Kodak Company. Silver salts of pyridine carboxylic acids and photographic emulsions containing the same. 3,532,502, 10-6-70, Cl. 96-114.6

Boyer, Wesley D., to Ford Motor Company. Capacitive storage ignition system. 3,496,921, 2-24-70, Cl. 123-148.

Boykin, John R., to Westinghouse Electric Corporation. Light frequency receiver. 3,508,060, 4-21-70, Cl. 250-199.

Boylan, Carol Clark, to Walbro Corporation. Wheel mount adapter. 3,503,659, 3-31-70, Cl. 308-16.

Boylan, John R.: *See—*
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Boylan, Joseph W.; and Culp, Charles R., to Armstrong Cork Company. Method of drying nodular fiberboard. 3,525,163, 8-25-70, Cl. 34-13.

Boyle, Edwin, Jr. Apparatus and method for determining the tendency to thrombose. 3,550,581, 12-29-70, Cl. 128-2.

Boyle, Frank P.: *See—*
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Boyle, George J.: *See—*
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Boyle, Gerald P., to Leeds & Northrup Company. Expendable immersion plug-in thermocouple unit. 3,493,439, 2-3-70, Cl. 136-234.

Boyle, Joseph V., Jr., to United States of America, National Aeronautics and Space Administration. Adjustable attitude guide device. 3,492,739, 2-3-70, Cl. 33-207.

Boyle, Robert F.: *See—*
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Boyle, Willard S., to Bell Telephone Laboratories, Incorporated. Geometrically selective ion bombardment by means of the photoelectric effect. 3,551,213, 12-29-70, Cl. 148-1.5

Boyle, Willard S.; and Morton, Jack A., to Bell Telephone Laboratories, Incorporated. Variable reflectance memory device. 3,502,891, 3-24-70, Cl. 250-230.

Boyle, William S.; and Verleur, Hans W., to Bell Telephone Laboratories, Incorporated. Optical memory device utilizing metal-semiconductor phase transition materials. 3,509,348, 4-28-70, Cl. 250-211.

Boyles Bros. Drilling Company: *See—*
Martinsen, Lyle J., 3,487,890.
Martinsen, Lyle J., 3,537,743.
Martinsen, Lyle J., 3,543,870.

Boyles, Robert L., to General Electric Company. Toothbrush with motion selector button. 3,489,936, 1-13-70, Cl. 310-47.

Boyles, Truman C. Reversible foam mattress having different degrees of firmness. 3,534,417, 10-20-70, Cl. 5-345.

Boylett, William F.; Hill, Joseph William; Leamon, Tom B.; and Shaw, George, to Pilkington Brothers Limited. Pumping and cooling system. 3,526,102, 9-1-70, Cl. 62-259.

Boynton, David G., to Beckman Instruments, Inc. Instrument output current limiting circuit. 3,536,988, 10-27-70, Cl. 323-9.

Boynton, Ira D.; Di Maggio, Carmelo A.; and Healy, James W., to Diamond Crystal Salt Company, mesne. Apparatus for making fluted packages. 3,516,889, 6-23-70, Cl. 156-357.

Boynton, Jerald H.; Felton, Dale D.; and Moffa, Joseph, to Armco Steel Corporation. Helically corrugated spiral pipe and coupling therefor. 3,501,179, 3-17-70, Cl. 285-373.

Boyriven, Paul, to Compagnie Industrielle de Mecanismes. Ball or roller locks. 3,537,741, 11-3-70, Cl. 292-261.

Boys, Fay L., to Sinclair Research, Inc. Nitrogen detector. 3,497,322, 2-24-70, Cl. 23-253.

Boysen, Gerd C., to Allen-Bradley Company. Pushbutton assembly. 3,514,554, 5-26-70, Cl. 200-16.

Boysen, Gerd C., to Allen-Bradley Company. Coil supporting plates. 3,544,937, 12-1-70, Cl. 336-65.

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Boyson, Ambrose Herbert, to Electric Construction (W'ton), Limited. Electrical generator with rotating printed circuit mounted rectifier assembly. 3,535,567, 10-20-70, Cl. 310-68.

Boyter, Walter C.; and Quinn, John Matthew. Flyer presser assembly. 3,548,583, 12-22-70, Cl. 57-117.

Boythorpe Cropstores Limited: *See—*
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Boytz, Charles B.: *See—*
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Bozarth, Abe Roscoe; and Blaine, Edward A., to Kewanee Oil Company. Hot briquetting and oxidation of coal-pitch mixtures in preparing activated carbon. 3,539,467, 11-10-70, Cl. 252-421.

Bozek, John S., to Continental Can Company, Inc. Method of manufacturing can end. 3,500,939, 3-17-70, Cl. 113-121.

Bozek, John S., to Continental Can Company, Inc. Stripping punch. 3,524,338, 8-18-70, Cl. 72-345.

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Bozich, Daniel J., to Wyle Laboratories. Underwater transducer. 3,500,304, 3-10-70, Cl. 340-9.

Bozich, George J., to Verson Allsteel Press Company. Transfer assembly for presses. 3,512,391, 5-19-70, Cl. 72-361.

Bozich, Michael J. Distributor for granular materials. 3,534,891, 10-20-70, Cl. 222-478.

Bozik, John E.; and Kehl, William D., to Gulf Research & Development Company. Method of preparing an iron group metal-tin catalyst. 3,519,575, 7-7-70, Cl. 252-472.

Bozik, John E.; Swift, Harold E.; and Wu, Ching Yong, to Goodrich-Gulf Chemicals, Inc. Diolefin alkylation process. 3,524,896, 8-18-70, Cl. 260-680.

Bozoian, Michael, to Ford Motor Company. Constant current instrument regulator. 3,532,981, 10-6-70, Cl. 324-106.

Bozoyan, Edward. Rotary spool valve. 3,504,703, 4-7-70, Cl. 137-625.23

Bozsanyi, William G., 1/2 to Shaw, Eagle T. Universal spring compressor. 3,504,419, 4-7-70, Cl. 29-227.

Bozsvai, Alexander E., to Reliance Electric Company. Dynamoelectric machine stator mounting. 3,539,851, 11-10-70, Cl. 310-91.

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Hadley, David James; Philpotts, Anthony Richard; and Millidge, Alfred Frank, 3,524,875.
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Brace, Robert S.; and Robinson, Edward L., Jr., to International Harvester Company. Cotton picker drive thereof. 3,528,229, 9-15-70, Cl. 56-11.

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Brach, Paul J.; and Ossanna, Oliver A., to Xerox Corporation. Process for preparing metal free phthalocyanines. 3,492,308, 1-27-70, Cl. 260-314.5

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Bracken, Joseph W., Jr., to General Motors Corporation. Regenerator rim spacer. 3,534,807, 10-20-70, Cl. 165-9.

Bracken, Joseph W., Jr., to General Motors Corporation. Regenerator seal. 3,542,122, 11-24-70, Cl. 165-9.

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Brackett, Lawrence W., Sr., to Wood Electric Corporation. Trip free reciprocating circuit breaker. 3,501,729, 3-17-70, Cl. 337-66.

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Brackman, Donald A., to Avco Corporation. Fail-safe retardation sensing system. 3,515,071, 6-2-70, Cl. 102-78.

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Bradbury, Mervin A. Combined target, disk markers, and ball game. 3,504,914, 4-7-70, Cl. 273-118.

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Braddock, Charles E., to Cities Service Company. Process and apparatus for manufacture of carbon black. 3,522,005, 7-28-70, Cl. 23-209.4

Braden, Arthur B., Jr.; and Roelandt, Frank J., to National Cash Register Company, The. Card feed mechanism for a high-speed card reader. 3,493,728, 2-3-70, Cl. 235-61.11

Braden, Denver, to Illinois Tool Works Inc. Article orienting feeder bowl. 3,508,639, 4-28-70, Cl. 198-33.

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Bradford, Charles E., to Bell Telephone Laboratories, Incorporated. Traveling wave tube helix support structure. 3,551,729, 12-29-70, Cl. 315-3.5

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Bradford, Dudley M.; and Proctor, Aurion M., to ACF Industries, Incorporated. Railway boxcar having end doors. 3,516,366, 6-23-70, Cl. 105-378.

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Bradley, Alan W.; and Leahy, David D., to Hewlett-Packard Ltd. Retaining clip and guide for a circuit board. 3,539,879, 11-10-70, Cl. 317-101.

Bradley, Bryant W., to Shell Oil Company. Permanently plugging thief zones between temporary frozen plug areas. 3,500,930, 3-17-70, Cl. 166-295.

Bradley, Frank R. Normalization circuits for potentiometer devices using constant source impedance voltage dividers. 3,519,930, 7-7-70, Cl. 324-98.

Bradley, Frank R. Scaling circuits for voltage dividers of the constant source impedance type. 3,519,931, 7-7-70, Cl. 324-98.

Bradley, George Rowland, III; and Hoolboom, Marinus Anton, to Procter & Gamble Company, The. Process for preparing soap bars free of omega phase soap. 3,523,909, 8-11-70, Cl. 252-370.

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Bradley, Ian G., to Permali Incorporated. Bushing insulator molding device. 3,490,731, 1-20-70, Cl. 249-95.

Bradley, James E.; Caldwell, Lonnie L.; and Gabler, Ray J., to Butler Manufacturing Company. Method and apparatus for assembling a joint. 3,513,534, 5-26-70, Cl. 29-468.

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Bradley, Marion W. Cut-off type wire stripper. 3,532,011, 10-6-70, Cl. 81-9.5

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Bradley, Terrag W., to International Business Machines Corporation. Container with external shock absorbing structure. 3,543,921, 12-1-70, Cl. 206-62.

Bradley, Thompson G., to General Motors Corporation. Electrochemical cell having volumetrically variable storage chambers. 3,488,223, 1-6-70, Cl. 136-86.

Bradley, Thompson G.; and Swinkels, Dominicus A. J., to General Motors Corporation. Galvanic cell system and method of discharging cell. 3,532,549, 10-6-70, Cl. 136-86.

Bradley, Warren H., to Medallion Pool Corporation. Cover for above ground pools. 3,523,308, 8-11-70, Cl. 4-172.12

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Bradley, William F., to Combustion Engineering, Inc. Digital feedwater control system. 3,518,974, 7-7-70, Cl. 122-451.

Bradley, Woody; and Keck, Zack R. Air compressor system for service truck. 3,545,561, 12-8-70, Cl. 180-53.

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Bradshaw, Norman Francis, to International Harvester Company. Transmission control device. 3,523,588, 8-11-70, Cl. 180-112.

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Brady, Richard R.; and Brickner, Kenneth G., to United States Steel Corporation. Stainless steel resistant to stress-corrosion cracking. 3,512,960, 5-19-70, Cl. 75-128.

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Braeuninger, Karl F., to Dow Chemical Company, The. Feeder hole die with improved metal flow. 3,527,079, 9-8-70, Cl. 72-269.

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Braga-Illa, Alvise A.; and Morrow, Walter E., Jr., to Massachusetts Institute of Technology. Synchronous satellite. 3,521,835, 7-28-70, Cl. 244-1.

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Braginetz, Paul A., to Morris, Philip, Incorporated. Blade holder and dispenser. 3,502,203, 3-24-70, Cl. 206-16.

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Braid, Milton, to Mobil Oil Corporation. Reaction product of diorganophosphorodithioates and diorganocarbodiimides. 3,499,838, 3-10-70, Cl. 252-32.7

Braid, Milton, to Mobil Oil Corporation. High metal content additives for fluid compositions. 3,523,081, 8-4-70, Cl. 252-32.7

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Sparrow, Lawrence R.; and Braiman, Jerry,3,537,173.

Brain, Edward George; and Nayler, John Herbert Charles, to Beecham Group Limited. Benzyloxycarbonylbenzylpenicillins and their catalytic hydrogenation. 3,492,291, 1-27-70, Cl. 260-239.1

Brainard, Alan J.; and Hamner, Glen Porter, to Esso Research and Engineering Company. Hydrocracking process for high end point feeds. 3,549,515, 12-22-70, Cl. 208-89.

Brainard, Edward C., II, to Braincon Corporation. Sub-surface effect vehicle. 3,492,962, 2-3-70, Cl. 114-16.

Brainard, Wallace Edward, to Kearney & Trecker Corporation. Interferometric machine for measuring angular motion. 3,542,474, 11-24-70, Cl. 356-110.

Brainard, Wallace E., to Kearney & Trecker Corporation. Thermal compensation system for position transducers. 3,491,277, 1-20-70, Cl. 318-18.

Brainard, Wallace E.: *See—*
Randall, John S.; Hutchens, Morris L.; Brainard, Wallace E.; and Drechsler, Erich F.,3,550,487.

Braincon Corporation: *See—*
Brainard, Edward C., II, 3,492,962.

Brainerd Manufacturing Co., Inc.: *See—*
Lippman, Aaron Harry, 3,537,739.

Brainin, C. S., The: *See—*
Stern, Theodore L., 3,488,841.

Braithwaite, Isaac, & Son (Engineers) Limited: *See—*
Holyoake, George Philip, 3,500,566.

Braithwaite, John Cannon, to Vickers Limited. Flexible couplings. 3,505,832, 4-14-70, Cl. 64-14.

Brake, Jon M.: *See—*
Hershenson, Harold; Brake, Jon M.; and Roberts, Martin,3,523,938.
Silverman, Herbert P.; and Brake, Jon M.,3,506,544.

Brake, Loren D., to Du Pont de Nemours, E. I., and Company. Preparation of α-methyl-1-adamantanemethylamine and α,4-dimethyl-1-bicyclo [2.2.2] octane methylamine. 3,489,802, 1-13-70, Cl. 260-563.

Brake, Loren D., to Du Pont de Nemours, E. I., and Company. Diaminocyclohexane polyolate adducts. 3,491,149, 1-20-70, Cl. 260-563.

Brakemaster Corporation: *See—*
George, Robert H., 3,516,231.

Braley, Charles M.: *See—*
Kluczynski, Mathew L.; and Braley, Charles M.,3,507,190.

Bramada Resources Limited: *See—*
Champagne, Jean P., 3,531,261.

Bramah Security Equipment Limited: *See—*
Young, Leonard Weare, 3,525,242.

Braman, Richard J.; and Scott, Robert D. Garment assembly. 3,525,334, 8-25-70, Cl. 128-142.5

Bramco Inc.: *See—*
Hobbs, Howard H.; Kunkle, Calvin S.; and Cataline, Acial L., 3,516,104.

Bramekamp, Karl-Juergen; Luginsland, Hans-Hermann; and Stolz, Ingo, to Titangesellschaft m.b.H. Titanium dioxide pigment having improved pigmentary properties. 3,506,466, 4-14-70, Cl. 106-300.

Bramekamp, Karl-Jurgen; and Hitzemann, Gerhard, to Titangesellschaft m.b.H. Process for production of vaporous titanium tetrachloride containing exact amounts of aluminum trichloride. 3,524,818, 8-18-70, Cl. 252-188.3

Bramer, Donald W., to Grafles, Inc. Strobe flash system power converter. 3,532,961, 10-6-70, Cl. 321-18.

Bramley, Anthony. Gun barrel oiling device. 3,514,888, 6-2-70, Cl. 42-1.

Bramley, Anthony; and Gilbert, John F., said Gilbert assor. to said Bramley. Production of netting. 3,501,366, 3-17-70, Cl. 161-57.

Bramley, Jenny, to Melpar, Inc. Coherent light source utilizing microwave pumping of an element having a metastable state as its first excited level. 3,493,845, 2-3-70, Cl. 332-7.51

Bramley, Orin B., to May-Fran Manufacturing Corporation. Conveyor assembly. 3,502,199, 3-24-70, Cl. 198-173.

Bramley, Winlaw B.: *See—*
Bishop, Gary E.; and Bramley, Winlaw B.,3,531,849.

Brammer, Robert C., to Stromberg-Carlson Products, Inc. Stabilizing jack base. 3,493,209, 2-3-70, Cl. 248-352.

Brammer, Robert C., to Stromberg-Carlson Products, Inc. Foldable bumper steps. 3,507,515, 4-21-70, Cl. 280-166.

Bramson, Joseph. Foldable packing bag. 3,504,841, 4-7-70, Cl. 229-22.

Bramwell, Joseph W., to United States Steel Corporation. Scale scraper for traveling-hearth furnace. 3,507,408, 4-21-70, Cl. 214-23.

Branagan, Edward F.: *See—*
Burkhardt, Lawrence E.; Johnson, Charles H.; and Branagan, Edward F.,3,505,583.

Branam, Joe H.: *See—*
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Brancale, Louis. Position indicating system. 3,493,925, 2-3-70, Cl. 340-61.

Brancaleone, Salvatore T., to International Telephone and Telegraph Corporation. Sealing crimp ring for coaxial connector. 3,539,709, 11-10-70, Cl. 174-75.

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Brancato, Joseph, to Brancato Iron Works, Inc. Roll up gate. 3,529,650, 9-22-70, Cl. 160-133.

Brancato, Salvatore J.; Hill, Joe M.; and Huang, Elizabeth, to Smith Kline & French Laboratories. Process for preparing 16α,17α-dihydroxy- progesterone acetophenide. 3,488,347, 1-6-70, Cl. 260-239.55

Branch, Sidney John, to Orobis Limited, mesne. Lubricant additives. 3,509,053, 4-28-70, Cl. 252-42.7

Branchu, Paul Joseph. Apparatus intended for simulating space meetings. 3,540,137, 11-17-70, Cl. 35-47.

Brancleone, Salvatore Thomas, to International Telephone and Telegraph Corporation. Self-locking seam. 3,526,420, 9-1-70, Cl. 287-189.36

Brand, H. Russell. Vending machine for dispensing rectangular and cylindrical products through common opening. 3,540,564, 11-17-70, Cl. 194-79.

Brand, John R.; and Galanti, Frank, to Warwick Electronics Inc. Electrical musical instrument dual purpose gate and keying circuit. 3,543,281, 11-24-70, Cl. 84-1.26

Brand, Karl; and Kessler, Franz, to Kugelfischer George Schafer & Co. High load capacity bearing assembly. 3,542,440, 11-24-70, Cl. 308-73.

Brand, Robert D., to RCA Corporation. Television tuner cast housing with integrally cast transmission lines. 3,538,466, 11-3-70, Cl. 334-43.

Brand, Stanley H.; and Wise, Doyle R., to Monsanto Company. Densification of polyolefins. 3,536,689, 10-27-70, Cl. 260-93.7

Brandau, William E.; and Napp, Anthony E., to Bendix Corporation, The. Pressure ratio measurement system. 3,548,662, 12-22-70, Cl. 73-398.

Brandau, William; and VanDer Sluys, Peter, to Bendix Corporation, The. Thermistor temperature compensator. 3,528,293, 9-15-70, Cl. 73-386.

Branddon, Edmund Lee.: *See—*
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Brandeis, Hans; Pfleger, Klaus; and Bille, Heinz, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Cellulosic fibrous materials. 3,503,793, 3-31-70, Cl. 117-136.

Brandeis, Hans; Ruemens, Wilhelm; and Stanger, Johann, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Tetrasilicic esters and their use for textile treatment. 3,529,008, 9-15-70, Cl. 260-448.8

Brandel, Albert John, to Chevron Research Company. Specific gravity analyzer for control of an alkylation process. 3,513,220, 5-19-70, Cl. 260-683.59

Brandelik, Sandor; and Batki, Laszlo, to Medicor Muvek. Apparatus for ascertaining optimum values for tubecurrent and anode voltage of X-ray tubes. 3,492,483, 1-27-70, Cl. 250-103.

Brandell, John R. Motion detecting and indicating device. 3,524,650, 8-18-70, Cl. 273-183.

Brandell, John R. Dispensing devices with pivoted integral controllers. 3,547,314, 12-15-70, Cl. 221-301.

Brandell Products Corporation: *See—*
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Brandenberger, Fred. Necktie and removable knot. 3,526,004, 9-1-70, Cl. 2-150.

Brandenburg, John T.: *See—*
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Brandenburg, Klaus, to U.S. Philips Corporation, mesne. Photoelectric width measures using pulse producing scanning members. 3,541,337, 11-17-70, Cl. 250-219.

Brandenburg, Klaus, to U.S. Philips Corporation, mesne. Arrangement for determining and digitally indicating the displacement of moving bodies. 3,543,150, 11-24-70, Cl. 324-83.

Brander, Robert William, to General Electric and English Electric Companies Limited, The. Silicon carbide luminescent materials. 3,527,626, 9-8-70, Cl. 148-33.4

Brandes, Ernest E. Air distributing apparatus. 3,515,052, 6-2-70, Cl. 98-41.

Brandes, Raymond G., to Bell Telephone Laboratories, Incorporated. Holographic recording media. 3,547,509, 12-15-70, Cl. 350-3.5

Brandes, Roy H., to General Motors Corporation. Fluid pump with plural accumulators. 3,496,879, 2-24-70, Cl. 103-152.

Brandes, Roy H., to General Motors Corporation. Variable stroke swash plate mechanism and adjusting means therefor. 3,511,102, 5-12-70, Cl. 74-60.

Brandestini, Antonio; and Siegwart, Hans Rudolf, said Siegwart assor. to said Brandestini. Method of fastening anchoring means to a tensioning wire. 3,526,941, 9-8-70, Cl. 29-155.

Brandhurst Company Limited: *See—*
Fletcher, Archibald William; Baggott, Eric Raymond; and Derry, Raymond, 3,544,309.

Brandl, Ben. Method and apparatus for removing defects from sheet metal. 3,503,245, 3-31-70, Cl. 72-340.

Brandle, Karl: *See—*
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Brandner, John David; and Stockburger, George Joseph, to Atlas Chemical Industries, Inc. Process for preparing high molecular content ester of propylene glycol. 3,499,917, 3-10-70, Cl. 260-410.6

Brandon, Clarence W., 25% to Brandon, Orpha B. 50% to Hardin, Nat A. Newton, Catherine H. Wright, Hazel 5% to Jackson, Harvey B. Apparatus for forming and/or augmenting an energy wave. 3,503,366, 3-31-70, Cl. 116-137.

Brandon, Clarence W., 12 1/2% to Brandon, Orpha B. 50% to Hardin, Nat A. Newton, Catherine H. Wright, Hazel H., jointly 5% to Jacob, Harvey B. Method and apparatus for forming and/or augmenting an energy wave. 3,503,446, 3-31-70, Cl. 166-249.

Brandon, J L. Apparatus for ascending an inclined guy or the like. 3,533,357, 10-13-70, Cl. 104-113.

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Brandon, Clarence W., 3,503,446.

Brandon, Percy Samuel; and Boyce, Allan Harry, to Marconi Company Limited, The. Dispersive networks. 3,530,408, 9-22-70, Cl. 333-28.

Brandon, Richard N.: *See—*
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Brandstetter, George William: *See—*
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Brandstetter, Lawrence F.; and Brandstetter, George William, to Brandstetter, George, & Sons, Co. Machine and improvement therein for laying surfacing material such as asphalt or the like. 3,526,173, 9-1-70, Cl. 94-44.
Brandstrom, Arne Elof; Carlsson, Stig Ake Ingemar; and Gagneux, Andre, to Geigy Chemical Corporation. 2-Alkanoyl or aroyl-3-aminoalkoxy indoles. 3,509,163, 4-28-70, Cl. 260-294.7
Brandt, Adolph W. Spiral striped insulator conductor and spiral striping means. 3,505,916, 4-14-70, Cl. 82-54.
Brandt Automatic Cashier Co.: *See—*
Bergman, Charles T.; and Weidner, Jack E., 3,539,179.
Buchholz, Arnold R.; Krause, Arnold J.; and Johnson, George V., 3,518,923.
Brandt, Edison R., to Polaroid Corporation. Apparatus for sequentially selecting photoflash lamps for ignition. 3,544,251, 12-1-70, Cl. 431-95.
Brandt, Edison R., to Polaroid Corporation. Apparatus for sequentially selecting photoflash lamps for ignition. 3,545,904, 12-8-70, Cl. 431-95.
Brandt, Fritz: *See—*
Tanke, Ullrich; Voegtlen, Dieter; Brandt, Fritz; and Bruninghaus, Karl,3,549,813.
Voegtlen, Dieter; Brandt, Fritz; and Bruninghaus, Karl,3,535,462.
Brandt, Hans-Ado, to Agfa-Gevaert Aktiengesellschaft. Apparatus for actuating shutter blades or the like. 3,545,361, 12-8-70, Cl. 95-61.
Brandt, Hans-Walther; Engelhard, Bruno; Kronig, Walter; and Schwerdtel, Wulf, to Farbenfabriken Bayer Aktiengesellschaft. Process for the production of pure isoprene by extractive distillation of cyclopentadiene with aqueous aniline. 3,501,550, 3-17-70, Cl. 260-681.5
Brandt, Hans-Walther; Engelhard, Bruno; Steude, Heinrich; Schleppinghoff, Bernhard; Scherb, Helmut; and Swodenk, Wolfgang, to Farbenfabriken Bayer Aktiengesellschaft, and Erdolchemie Gesellschaft mit beschrankter Haftung. Process for the production of isoprene from C_5 fractions substantially free of paraffins and olefins by extractive distillation of cyclopentadiene with aniline. 3,497,566, 2-24-70, Cl. 260-681.5
Brandt, Hans-Walther; Reissinger, Karl-Hermann; and Schmickler, Peter, to Farbenfabriken Bayer Aktiengesellschaft. Flighted trickle column. 3,533,609, 10-13-70, Cl. 261-113.
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Kronig, Walter; Schwerdtel, Wulf; Brandt, Hans-Walther; and Engelhard, Bruno,3,494,975.
Brandt, James W., to Lovell Manufacturing Company. Wringer with drive and pressure release. 3,487,664, 1-6-70, Cl. 68-253.
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Trojan, George; and Brandt, Lawrence,3,499,954.
Brandt, Milo O., to American Optical Corporation. Adjustable pattern shoe for lens edging machine. 3,498,005, 3-3-70, Cl. 51-101.
Brandt, Raymond A. Matrix for the coordinate detection of point source radiation in a two-dimensional plane. 3,539,995, 11-10-70, Cl. 340-166.
Brandt, Wilhelm; and Bindrum, Irmgard, to Kalle Aktiengesellschaft. Coated regenerated cellulose hydrate film. 3,520,717, 7-14-70, Cl. 117-122.
Brandts, Theodorus Gerardus; Lichtenberger, Joseph A.; and Kristiansen, Ole Eiolf, to Consolidated Paper (Bahamas) Limited. Laminated products. 3,536,563, 10-27-70, Cl. 156-246.
Brandts, Theodorus Gerardus; and Lichtenberger, Joseph Alois, to Consolidated Paper (Bahamas) Limited. Resins from bark. 3,517,052, 6-23-70, Cl. 260-473.5
Brane, Ralph M.; and Hart, Donald P., to PPG Industries, Inc. Aqueous, electrodepositable compositions of polycarboxylic acid resin and an organophilic cation-modified clay. 3,515,689, 6-2-70, Cl. 260-22.
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Branfield, Malcolm M., 1/2 to Nissen, Cyril E. House trailer. 3,531,151, 9-29-70, Cl. 296-23.
Branger, Juerg. Fatigue testing apparatus. 3,491,586, 1-27-70, Cl. 73-91.
Brangs, Helmut; and Liebke, Kurt, to Presswerk Koengen G.m.b.H. Electric warmplate. 3,513,296, 5-19-70, Cl. 219-438.
Branham, Richard A., to Martin-Marietta Corporation. Time division multiplex multiple frequency diversity troposcater communication system. 3,523,250, 8-4-70, Cl. 325-56.
Branham, Richard A.: *See—*
Varsos, Spyros G.; and Branham, Richard A.,3,505,609.
Branick, Charles E., to Applied Power Industries, Inc. Safety cage for postinflation apparatus. 3,495,647, 2-17-70, Cl. 157-1.
Branitzky, Abraham, to U.S. Meter Corporation. Liquid meter. 3,523,455, 8-11-70, Cl. 73-258.
Brankamp, George W., to Procter & Gamble Company, The. Preparation of colored fatty compositions. 3,489,573, 1-13-70, Cl. 99-148.
Brannan, Marry Ann F.: *See—*
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Brannland, Rolf, to Mo och Domsjo Aktiebolag. Process for preparing kraft pulping liquor from black liquor including separate carbonation with combustion gases and evaporation steps. 3,525,666, 8-25-70, Cl. 162-30.
Brannon, Donald R., to United States of America, Army. Steroid transformation by enzymes of aspergillus tamarii. 3,523,870, 8-11-70, Cl. 195-51.
Brannon, John E.; and Conn, Louis, Jr., to Dover Corporation. Viscosity control means for fluid of hydraulic elevator systems. 3,530,958, 9-29-70, Cl. 187-17.
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Brans, Theodorus J.: *See—*
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Branson, Charles D., to Robertshaw Controls Company. Burner construction and method and apparatus for making the same and the like. 3,540,258, 11-17-70, Cl. 72-324.
Branson, Charles D.; Genbauffe, Francis S.; and Wolfe, Denis G., to Robertshaw Controls Company. Ignition means and method for a cooking apparatus or the like. 3,490,434, 1-20-70, Cl. 126-39.
Branson, Charles D.; and Wolfe, Denis G., to Robertshaw Controls Company. Fuel control system and parts therefor or the like. 3,521,814, 7-28-70, Cl. 236-15.
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Brech, Kilian H.; and Krenke, Vincent Gerald, 3,500,089.
Higgins, Leonard James, 3,536,243.
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Brantley, Richard K., to Du Pont de Nemours, E. I., and Company. 1-(N-alkyl and N,N-dialkylaminooxy)-3-alkylamino-s- triazines. 3,510,485, 5-5-70, Cl. 260-249.5
Brantley, Richard K., to Du Pont de Nemours, E. I., and Company. Herbicidal alkylcarbamoyloxy semicarbazides. 3,511,875, 5-12-70, Cl. 260-479.
Brantley, Richard K., to Du Pont de Nemours, E. I., and Company. Substituted ureido isoxazoles. 3,547,940, 12-15-70, Cl. 260-307.
Brantley, Richard K., to Du Pont de Nemours, E. I., and Company. Herbicidal carbamoyloxyphenyl N-alkoxyureas. 3,547,979, 12-15-70, Cl. 260-479.
Branton, Donald L., to Sta-Rite Industries, Inc. Apparatus for introducing air into a vacuum milking system during the washing cycle. 3,506,034, 4-14-70, Cl. 137-624.17
Branton, Donald L., to Sta-Rite Industries, Inc. Liquid transfer apparatus. 3,534,761, 10-20-70, Cl. 137-205.
Branton, Eric Sidney, to Activated Sludge Limited. Means for diffusing gases into liquids. 3,532,272, 10-6-70, Cl. 239-145.
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Brany, Jaroslav, to Vuzkumny ustav strojirenske technologie a ekonomiky. Method and apparatus for the manufacture of spherical bodies. 3,545,139, 12-8-70, Cl. 51-117.

Brashear, Donald W.: *See—*
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Brasier, Robert E., to Boeing Company, The. Three-directional optical element. 3,531,186, 9-29-70, Cl. 350-286.
Braski, Ervin W.: *See—*
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Brass, Robert L.; and Rothrock, Hamilton I., Jr., to Bell Telephone Laboratories, Incorporated. Data retrieval system employing an automatic start of retrieval feature. 3,529,295, 9-15-70, Cl. 340-172.5
Brassington, Samuel M.: *See—*
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Brastad, William A., to General Mills, Inc. Easily openable carton. 3,491,937, 1-27-70, Cl. 229-51.
Brasty, Joseph. Apparatus for embossing paper sheets in an offset printing press. 3,513,772, 5-26-70, Cl. 101-23.
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Bratkowski, Walter V.: *See—*
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Bratland, Arthur, to GAF Corporation. Production of recombined cream. 3,505,077, 4-7-70, Cl. 99-63.
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Bratschi, Konrad. Curtain rail. 3,507,317, 4-21-70, Cl. 160-345.
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Brattberg, Nils Arthur Johan, to Aktiebolaget Lyckeaborgs Bruk. Tight lead-through inlet frame device. 3,489,440, 1-13-70, Cl. 285-192.
Brattesani, Donald N., to Union Oil Company of California. Production of paraxylene. 3,548,021, 12-15-70, Cl. 260-673.5
Bratton, David R., to Solidstate Controls, Inc. Synchronization circuit. 3,515,895, 6-2-70, Cl. 307-64.
Bratton, Francis H.; Fick, Herbert J.; and Mahagnoul, Edward J., to Schjeldahl, G. T., Company. Printed wiring means having a flame retardant constituent. 3,534,147, 10-13-70, Cl. 174-68.5
Bratzler, Karl: *See—*
Hochgesand, Gerhard; Heidl, Hellmut; Unland, Herbert; Doerges, Alexander; and Bratzler, Karl,3,505,784.
Brauchla, Herbert C., 1/2 to Guernsey, J. D. Hand strip screw driving gun. 3,511,286, 5-12-70, Cl. 145-53.
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Jackson, Wilbur F.; and Braucksiek, Henry C.,3,532,269.
Brauer, Edwin Henry; and Demetriades, Pan, to Cyril Bath Company, The. Stretch bending machine with segmental die, tolerance detector, and safety shock absorber. 3,525,247, 8-25-70, Cl. 72-305.
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Brault, Andre R.; and Chitayat, Anwar K., to OPTOmechanisms, Inc. Lead screw measuring means. 3,515,481, 6-2-70, Cl. 356-73.
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Braum, Hans Norman; and Kogler, Peter. Machine for producing spirally-or straight- fluted work pieces by grinding. 3,488,886, 1-13-70, Cl. 51-3.
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Braun, Albert; Asmus, Frank G.; and Asmus, Frank R., to Letterhouse Incorporated. Interlocking script letters. 3,537,202, 11-3-70, Cl. 40-140.
Braun, Anton. Free piston engine. 3,500,804, 3-17-70, Cl. 123-46.
Braun, Anton. Balanced free piston engine. 3,501,088, 3-17-70, Cl. 230-56.
Braun, Anton. Free piston engine apparatus. 3,524,436, 8-18-70, Cl. 123-46.
Braun, Anton. Engine. 3,525,102, 8-18-70, Cl. 417-364.
Braun, Arthur R., to Warner-Lambert Pharmaceutical Company, mesne. Self-restarting siphon. 3,491,787, 1-27-70, Cl. 137-142.
Braun, Arthur R. Wobble pump. 3,494,293, 2-10-70, Cl. 103-131.
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Braun, Arthur R. Rotary combustion machine. 3,529,581, 9-22-70, Cl. 123-18.
Braun, B., International GmbH: *See—*
Braun, Bernhard; and Thiele, Heinrich, 3,491,760.
Braun, Bernhard; and Thiele, Heinrich, to Braun, B., International GmbH. Wound coverings. 3,491,760, 1-27-70, Cl. 128-334.
Braun, C. F., & Company: *See—*
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Braun, Carl G.: *See—*
Braun, Karl J.; and Braun, Carl G.,3,547,265.
Braun, Edward C., to Avco Corporation. Signal powered signal-to-noise squelch. 3,538,253, 11-3-70, Cl. 179-1.
Braun, Emil, to Orenstein & Koppel Aktiengesellschaft. Guiding arrangement for platform carriages for passenger conveyor installatons. 3,530,799, 9-29-70, Cl. 104-25.
Braun Engineering Company: *See—*
Braun, Frederick W.; and Oree, Samuel, Jr., 3,514,992.
Braun Engineering Corporation: *See—*
Braun, Karl J., 3,543,638.
Braun, Eric A., to Ex-Cell-O Corporation. Container bottom closing. 3,498,524, 3-3-70, Cl. 229-38.
Braun, Ernst; and Braun, Gert, to Halbach & Braun. Mine excavator-conveyor assembly. 3,499,683, 3-10-70, Cl. 299-34.
Braun, Eugene R., to Eaton Yale & Towne, Inc. Turbine with brake and thermostatic speed control. 3,533,493, 10-13-70, Cl. 192-3.
Braun, Eugene R., to Eaton Yale & Towne, Inc. Fluid retarder. 3,547,231, 12-15-70, Cl. 188-90.
Braun, Ewald, to Siemens Aktiengesellschaft. Arrangement with circuit networks built up in integrated circuit technique. 3,510,678, 5-5-70, Cl. 307-202.
Braun, Frank R.: *See—*
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Braun, Franz: *See—*
Haack, Erich; and Braun, Franz,3,511,705.
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Braun, Frederick W.; and Oree, Samuel, Jr., to Braun Engineering Company. Cold header. 3,514,992, 6-2-70, Cl. 72-455.
Braun, G. A., Inc.: *See—*
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Hesse, Alfred; and Braun, Gebhardt,3,526,356.
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Meyer, Werner; and Braun, Gunter,3,525,555.
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Braun, Gunter, to Knorr-Bremse G.m.b.H. Traction increaser apparatus for railway vehicles. 3,493,086, 2-3-70, Cl. 188-165.
Braun, Helmut: *See—*
Baier, Hans; Mayer, Rolf; Braun, Helmut; Preiss, Harry; and Ilg, Walter,3,502,277.
Braun, Jacob G., III. Railing formed of interlocking components. 3,522,933, 8-4-70, Cl. 256-22.
Braun, John A., to Texas Instruments, Incorporated. Pressure releasing feed-through battery terminal. 3,537,903, 11-3-70, Cl. 136-178.
Braun, John D.; and Roy, Edward M., to United States of America, Navy. Method for applying a burn inhibitor material to a composite propellant grain. 3,493,446, 2-3-70, Cl. 149-109.
Braun, Jurgen: *See—*
Endermann, Fritz; Uhlig, Fritz; and Braun, Jurgen,3,527,604.
Braun, Karl J., to Braun Engineering Corporation. Travel extension attachment for machine tools. 3,543,638, 12-1-70, Cl. 90-58.
Braun, Karl J.; and Braun, Carl G., to Dahl, Thor, Inc. Scanning mechanism. 3,547,265, 12-15-70, Cl. 209-111.7
Braun, Karlheinz. Electrically insulating pipe coupling assembly, particularly for small diameter pipes. 3,503,632, 3-31-70, Cl. 285-48.
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Braun, Karl. Individually adjustable magnet systems of a sterophonic pickup. 3,542,972, 11-24-70, Cl. 179-100.41
Braun, Manfred H.: *See—*
Johnson, Harold J.; and Braun, Manfred H.,3,528,718.
Braun, Morris, to Braun, W., Company. Closures for bottles and the like. 3,511,403, 5-12-70, Cl. 215-44.
Braun, Richard D., to Flagler Corporation, The. Adjustable-width roll forming machine. 3,543,299, 11-24-70, Cl. 72-181.
Braun, Robert A., to Du Pont de Nemours, E. I., and Company. Heterocyclic fluorine containing compounds and polymers thereof. 3,488,335, 1-6-70, Cl. 260-88.3
Braun, Robert A., to Du Pont de Nemours, E. I., and Company. Perhalo containing air-drying monomers. 3,534,066, 10-13-70, Cl. 260-345.8

Braun, Robert, to Allianz Versicherungs-Aktiengesellschaft. Large generator shaft voltage reducing arrangement and indicator. 3,506,912, 4a14-70, Cl. 324-34.

Braun, Samuel: *See—*
Price, Charles B.; and Braun, Samuel,3,512,631.

Braun, Siegfried; Ruppel, Friedrich; and Schippers, Heinz, to Barmag Barmer Maschinenfabrik Aktiengesellschaft. Extrusion die for underwater granulator. 3,516,120, 6-23-70, Cl. 18-12.

Braun, Vincent C.; and Miller, Earle A., to American Welding & Manufacturing Company, The. Window frame and glazing members for a metal door. 3,487,602, 1-6-70, Cl. 52-455.

Braun, Volker: *See—*
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Braun, W., Company: *See—*
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Braun, William H., to Carey-McFall Company. Apparatus for cutting strip material. 3,491,636, 1-27-70, Cl. 83-162.

Braunberger, Ray A. Sliding fifth wheels. 3,498,635, 3-3-70, Cl. 280-407.

Braunecker, Ambrose J.: *See—*
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Brauninger, Arno: *See—*
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Brauns, William P.; and Hartranft, George E., to Western Electric Company, Incorporated. Methods of and apparatus for producing multiconductor transmission media having improved. 3,487,540, 1-6-70, Cl. 29--624

Braunschweigische Maschinenbauanstalt: *See—*
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Braunschweigische Maschinenbauanstalt: *See—*
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Matusch, Siegfried; Backofen, Hans-Dieter; and Schaper, Helmut, 3,515,009.

Braunstein, Rubin; Frantz, Lee M.; and Altshuler, Saul, to TRW Inc. Methods and apparatus for deflecting atoms. 3,532,879, 10-6-70, Cl. 250-41.9

Braunwarth, John B.: *See—*
Rai, Charanjit; Braunwarth, John B.; and Kimble, Robert C.,3,505,359.
Sanders, Herbert L.; and Braunwarth, John B.,3,505,396.

Braus, Harry: *See—*
Lecher, Hans Z.; Braus, Harry; and Woltermann, Jay R.,3,504,056.

Braus, Harry; and Waas, Fred D., to National Distillers and Chemical Corporation. Stabilizing polymers. 3,506,608, 4-14-70, Cl. 260-45.7

Braus, Harry; and Woltermann, Jay R., to National Distillers and Chemical Corporation. Hydroxyethyl-β-(3,5-di-t-butyl-4-hydroxybenzylthio) alkanoate. 3,504,012, 3-31-70, Cl. 260-470.

Braus, Harry; and Woltermann, Jay R., to National Distillers and Chemical Corporation. 2,9-Bis(3,5-di-t-butyl-4-hydroxybenzylthio)-p- menthane. 3,509,220, 4-28-70, Cl. 260-609.

Braus, Harry; and Woltermann, Jay R., to National Distillers and Chemical Corporation. Tri(alkyl thiophenyl) phosphites. 3,509,242, 4-28-70, Cl. 260-949.

Braus, Harry; and Woltermann, Jay R., to National Distillers and Chemical Corporation. Tri(3,5-Di-t-butyl-4-hydroxybenzylthioalkyl) phosphites. 3,523,146, 8-4-70, Cl. 260-948.

Braus, Harry; and Woltermann, Jay R., to National Distillers and Chemical Corporation. Preparation of hydrocarbon thioalkylene phosphites. 3,524,909, 8-18-70, Cl. 260-968.

Braus, Harry; and Woltermann, Jay R., to National Distillers and Chemical Corporation. Stabilized olefin polymer compositions. 3,538,047, 11-3-70, Cl. 260-45.85

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Braus, Harry; and Woltermann, Jay R., to National Distillers and Chemical Corporation. Pentaerythritoltetrakis-(3,5-di-t-butyl-4-hydroxy- benzylthio-acetate). 3,546,272, 12-8-70, Cl. 260-470.

Brautaset, Knut; and Delmege, Arthur H., to Sperry Rand Corporation: Fluidic device. 3,521,654, 7-28-70, Cl. 137-81.5

Braverman, George L.: *See—*
Santagata, Frank; and Braverman, George L.,3,494,330.

Braverman, Murray, to Bulova Watch Company, Inc. Frequency comparison apparatus and method with error elimination. 3,519,928, 7-7-70, Cl. 324-79.

Bravetti, Libero. Ironing machine for clothes, textile fabrics or the like. 3,487,566, 1-6-70, Cl. 38-8.

Bravetti, Libero. Mangle. 3,510,971, 5-12-70, Cl. 38-8.

Brawand, Franklin M. Safety draft hooks. 3,498,051, 3-3-70, Cl. 59-93.

Brawer, Irving: *See—*
Dimond, William; and Brawer, Irving,3,508,421.
Dimond, William; and Brawer, Irving,3,530,693.

Brawner, Frederick A.; and Pringle, William L., to Robbins, Jim, Seat Belt Co. Overhead mounted belt retractor with latch means. 3,545,788, 12-8-70, Cl. 280-150.

Brawner, Joseph L.; and Rausch, Paul G. Lining slabs for hot tops, ingot moulds and the like for metal casting. 3,506,236, 4-14-70, Cl. 249-202.

Braxton, Henry G., Jr., to Ethyl Corporation. Benzylidene bisphenol acylate exhaust emission reducing additive. 3,547,958, 12-15-70, Cl. 260-395.

Braxton, Henry G., Jr.; and Lajiness, Evelyn J., to Ethyl Corporation. Method of defoliating plants with organomercurials. 3,501,284, 3-17-70, Cl. 71-72.

Braxton, Henry G., Jr.; and Lajiness, Evelyn J., to Ethyl Corporation. Herbicidal organophosphorus-nitrogen compositions and method using same. 3,511,635, 5-12-70, Cl. 71-87.

Braxton, Henry G., Jr.; and Lajiness, Evelyn J., to Ethyl Corporation. Method of defoliating plants with organomercurials. 3,524,741, 8-18-70, Cl. 71-70.

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Braxton, Ralph C.; and Phillippie, Leonard E., to Alamance Industries, Inc. Method for finishing full-fashioned brassiere blanks. 3,527,858, 9-8-70, Cl. 264-151.

Braxton, Ralph C.; Schoffner, Glenn R.; and Levine, Alex, deceased0 (by Levine, Ida; excutrix), said Schoffner and Braxton assors to Alamance Industries, Inc. Full-fashioned brassiere and blank. 3,500,665, 3-17-70, Cl. 66-176.

Bray, Dale S.: *See—*
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Bray, Donald T.: *See—*
Hancock, Robert D.; and Bray, Donald T.,3,542,203.

Bray, Donald T., to Desalination Systems, Inc. Reverse osmosis apparatus. 3,504,796, 4-7-70, Cl. 210-137.

Bray, Donald T., to Desalination Systems, Inc. Method of treatment of liquids by reverse osmosis. 3,505,215, 4-7-70, Cl. 210-22.

Bray, Donald T.; and Brown, Ross M., to Desalination Systems, Inc. Purified water supply apparatus and method. 3,493,496, 2-3-70, Cl. 210-23.

Bray, Donald T.; and Brown, Ross M. Reverse osmosis water purification unit. 3,542,199, 11-24-70, Cl. 210-116.

Bray, Ellis E., to Mobil Oil Corporation. Method of geochemical exploration by the infrared analysis of selected atoms of isolated aromatic hydrocarbons. 3,496,350, 2-17-70, Cl. 250-43.5

Bray, Horace A. Friction material. 3,494,774, 2-10-70, Cl. 106-36.

Bray, Jeremy William: *See—*
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Bray, Jerome O. Focusing binoculars. 3,508,805, 4-28-70, Cl. 350-46.

Bray, John Alan; and Donn, Ian Mackenzie, to United Kingdom Atomic Energy Authority. Cleansing of components contaminated with alkali metals. 3,535,162, 10-20-70, Cl. 134-42.

Bray, John R.: *See—*
Marshall, John L., Jr.; and Bray, John R.,3,508,432.

Bray Oil Company: *See—*
Bray, Ulric B.; and Fainman, Morton Z., 3,544,472.

Bray, Robert S.: *See—*
Lozano, Luis J.; and Bray, Robert S.,3,500,532.

Bray, Robert S.; and Lozano, Luis J., to Anaconda American Brass Company. Gas shield, non-consumable-electrode pulse arc welding. 3,538,301, 11-3-70, Cl. 219-137.

Bray, Thomas E.; Schultz, Robert E.; and Stern, Barry J., to General Electric Company. Telemetering system with optoelectronic coupling between transmission line and meter. 3,503,061, 3-24-70, Cl. 340-180.

Bray, Thomas F., to Owens-Illinois, Inc. Lightweight telescope mirror blank product and process of producing the same from glass. 3,514,275, 5-26-70, Cl. 65-33.

Bray, Thomas L.; Ward, George C.; and Cofer, Daniel B., to Southwire Company. Wheel-band continuous casting machine having a single point band tensioning device. 3,545,527, 12-8-70, Cl. 164-154.

Bray, Ulric B.; and Fainman, Morton Z., to Bray Oil Company. Power transmission hydrocarbon oil. 3,544,472, 12-1-70, Cl. 252-73.

Bray, William E.; Hirvela, Robert J.; and Kaliher, Dennis E., to Collins Radio Company. Data character assembler and disassembler. 3,516,069, 6-2-70, Cl. 340-172.5

Bray, William E.; and Jasper, Leslie L., to Texas Instruments, Incorporated. Method for measuring the amplitude of any point on repetitive cycles of a high frequency waveform. 3,538,435, 11-3-70, Cl. 324-77.

Bray, William O., to Honeywell Inc. Fluid level capacitor. 3,524,116, 8-11-70, Cl. 317-246.

Bray, William R. Injector-ram jet engine. 3,514,956, 6-2-70, Cl. 60-269.

Brayley, Elwin John, to Eltra Corporation, mesne. Generator protective device using a zener diode as an overvoltage sensor. 3,529,211, 9-15-70, Cl. 317-31.

Brayman, George E., to Eagle Empire Corporation, mesne. Paper roll filter structure. 3,504,803, 4-7-70, Cl. 210-439.

Brayton, Peter H. Safety zipboot and umbrella. 3,526,238, 9-1-70, Cl. 135-33.

Brayton, Peter H. Vertical positioner for golf bag. 3,532,313, 10-6-70, Cl. 248-96.

Brazdovic, Rudolph T.: *See—*
Bernardi, Eugene L.; and Brazdovic, Rudolph T.,3,550,283.

Brazdzionis, Algis B., to Uniroyal, Inc. Leather-like poromeric material and method for making the same. 3,537,947, 11-3-70, Cl. 161-166.

Brazeale, Don Laverne; and Henderson, Gary Vernon. Paper roll plug. 3,547,367, 12-15-70, Cl. 242-68.6

Brazier, Newton F. Exercising bar with removable weight disc. 3,502,329, 3-24-70, Cl. 272-81.

Breakfield, Joseph W.: *See—*
Crimmins, David J.; Basile, Rocco F.; and Breakfield, Joseph W.,3,523,844.

Brean, John, to Baldwin, D. H., Company. Optical encoder. 3,524,184, 8-11-70, Cl. 340-347.

Brean, John; and Lampkin, Curt M., to Baldwin, D. H., Company. Photodiode assembly for optical encoder. 3,522,435, 8-4-70, Cl. 250-211.

Breant, Claude Jean Maurice: *See—*
Blachere, Albert Marie Ernest; and Breant, Claude Jean Maurice,3,510,508.

Breant, Gerard D. G.: *See—*
Pavlin, Cyrille F.; Facon, Pierre J. A.; and Breant, Gerard D. G.,3,524,461.

Breant, Pierre Louis Vincent, to Telecommunications Radioelectriques et Telephoniques T.R.T. Methods of conditioning binary information signals for transmission. 3,505,644, 4-7-70, Cl. 340-146.1

Brear, John H., to Serk, R. & D., Limited. Fluid switching devices. 3,512,557, 5-19-70, Cl. 137-81.5

Breaux, Onezime P. Cryogenic turbo-molecular vacuum pump. 3,536,418, 10-27-70, Cl. 417-49.

Breazeale, Francis B.: *See—*
Bowers, Virginia S.; Breazeale, Francis B.; and Rice, Charles M.,3,500,628.

Brebant, Robert, to Sodeo, Societe Anonyme, mesne. Apparatus for treating a liquid with a gas, notably for deodorizing edible oil. 3,517,732, 6-30-70, Cl. 165-108.

Brech, Kilian H., to Branson Instruments Incorporated. Pulse echo ultrasonic testing apparatus with signal attenuation compensation. 3,494,179, 2-10-70, Cl. 73-67.7

Brech, Kilian H.; and Krenke, Vincent Gerald, to Branson Instruments, Incorporated. Ultrasonic cleaning apparatus. 3,500,089, 3-10-70, Cl. 310-8.1

Brechbuhl, Heinz: *See—*
Oberholzer, Max; Locher, Robert; and Brechbuhl, Heinz,3,528,368.

Brechbuhler, Hans Ulrich: *See—*
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Brecher, Lee E.: *See—*
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Brechna, Habibo; and Garwin, Edward L., to United States of America, Atomic Energy Commission. Composite superconducting cable having a porous matrix. 3,527,873, 9-8-70, Cl. 124-15.

Brecht, William F., Jr. Buoyancy control for scuba diving. 3,487,647, 1-6-70, Cl. 61-69.

Brechtel, Fred I. Work holder or jig. 3,510,118, 5-5-70, Cl. 269-104.

Breckenridge, Davis T.: *See—*
Caples, Allen S.; and Breckenridge, Davis T.,3,542,402.

Breckheimer, Walter; and Kunz, Wilhelm, to Oskar Neynaber & Co., AG, Firma. Process for the preparation of a mixed pigment. 3,513,006, 5-19-70, Cl. 106-297.

Breckheimer, Walter; and Kunz, Wilhelm, to Neynaber, Oskar, & Co., A.G., Firma. Stabilizing vinyl chloride resins with a lead carbonate-lead sulfate coprecipitate. 3,536,659, 10-27-70, Cl. 260-45.75

Brecknell, Kenneth F.; and Ashdown, Ronald Arthur, to Foster Wheeler Corporation. Ball hopper for ball mills. 3,542,300, 11-24-70, Cl. 241-101.

Breckwoldt, Robert G., to Pillsbury Company, The, mesne. Artificially sweetened beverages and mixes thereof. 3,510,310, 5-5-70, Cl. 99-28.

Breden, Leslie H., to Grace, W. R., & Co. Foamable capsules. 3,511,017, 5-12-70, Cl. 53-33.

Bredereck, Karl: *See—*
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Bredeson, Dean K., to French Oil Mill Machinery Company, The. Mechanical screw press. 3,518,936, 7-7-70, Cl. 100-117.

Bredza, Nikolajs; and Miller, Forbes M., to Wall Colmonoy Corporation. Method of forming cermet-type protective coatings on heat resistant alloys. 3,547,673, 12-15-70, Cl. 117-22.

Breece, Burton W., to General Motors Corporation. Circuit for sequentially energizing a plurality of loads. 3,504,338, 3-31-70, Cl. 340-67.

Breed, Arie Eugene: *See—*
Burrough, Donald E.; and Breed, Arie Eugene,3,498,398.

Breed, Arthur R., to Lamson & Sessions Co., The. Thread forming and locking fastener. 3,504,722, 4-7-70, Cl. 151-22.

Breed, Arthur R., to Lamson & Sessions Co., The. Lock bolt and method of making the same. 3,526,914, 9-8-70, Cl. 10-10.

Breed, Carl H.; Bush, Carroll H.; and Getz, John E. Impulse actuated reed switch. 3,510,607, 5-5-70, Cl. 200-81.

Breed, Robert G.: *See—*
Luther, Arch C., Jr.; and Breed, Robert G.,3,542,950.

Breeding, Dillard, deceased; and Breeding, Freida Jones; executrix, to Breeding Insulation Company Inc. Protective shield for pipe hanger assembly. 3,530,899, 9-29-70, Cl. 138-107.

Breeding, Freida Jones: *See—*
Breeding, Dillard, deceased; and Breeding, Freida Jones; executrix,3,530,899.

Breeding Insulation Company Inc.: *See—*
Breeding, Dillard, deceased; and Breeding, Freida Jones; executrix, 3,530,899.

Breen, Alvin L., to Du Pont de Nemours, E. I., and Company. Microfibers and shaped structures containing microfibers. 3,546,063, 12-8-70, Cl. 161-176.

Breen, Alvin L.; and Lauterbach, Herbert G., to Du Pont de Nemours, E. I., and Company. Process for increasing the bulk of multifilament yarn. 3,543,358, 12-1-70, Cl. 28-72.12

Breen, Bernard P.; Lawver, Bill R.; and Kliege, James R., to Marshall Industries. Electrolytic method for initiating and continuing decomposition of an exothermic propellant to provide thrust. 3,521,453, 7-21-70, Cl. 60-207.

Breen, Henry D.: *See—*
Lundvall, John S.; Loomis, Russell M.; and Breen, Henry D.,3,490,388.

Breen, John J.: *See—*
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Breen, John M. Tool for inserting tire studs. 3,504,414, 4-7-70, Cl. 29-200.

Breen, William H.; and Sirine, Gloria F., to National Cash Register Company, The. Method of making dual wall capsules. 3,551,346, 12-29-70, Cl. 252-316.

Breene, Peter S.: *See—*
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Breens, Leon Frank Haddon; and Garratt, William Charles, to Courtaulds Limited. Resin treated pile floor coverings. 3,506,479, 4-14-70, Cl. 117-161.

Brees Plastics Limited: *See—*
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Breetz, Louis D., to United States of America, Navy. Minimum peak power signal synthesizer. 3,513,412, 5-19-70, Cl. 332-23.

Breeze Corporation, Inc.: *See—*
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Breeze Corporations, Inc.: *See—*
Laky, Elmer, 3,533,575.

Breeze, Robert K.: *See—*
United States of America,National Aeronautics and Space Administration, Administrator, 3,507,146.

Brega, Angelo: *See—*
Piana, Francesco; and Brega, Angelo,3,525,240.

Breguet-Aviation: *See—*
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Bruner, Georges, 3,550,721.

Breher, Rudolf, to Elastomer A.G., Firma. Mould support units for injection-moulding machines. 3,543,346, 12-1-70, Cl. 18-30.

Brehm, Richard Keith; Ilowski, Joseph Stanislaw; and Jarrell, Richard Fiske, to Fisher Scientific Company, mesne. Diffraction grating spectrometer wherein the grating has first and second groups of grooves. 3,523,734, 8-11-70, Cl. 356-79.

Breidenbach, Gert: *See—*
Burger, Theodor; Hellmig, Erhard; Vanheerentals, Jacques Leon; Natens, Luc Yves; and Breidenbach, Gert,3,531,199.

Breidenbach, Gert, to Intertip AG. Selective blocking means for a key operated machine. 3,536,178, 10-27-70, Cl. 197-107.

Breidt, Peter, Jr.; and Lefevre, Lloyd E., to Dow Chemical Company, The. Extrusion of wide thermoplastic film and sheet. 3,494,993, 2-10-70, Cl. 264-166.

Breidt, Peter, Jr.: *See—*
Lefevre, Lloyd Edward; and Breidt, Peter, Jr.,3,528,130.

Breier, Morton A., to Dorr-Oliver Incorporated. Aircraft loading equipment. 3,538,529, 11-10-70, Cl. 14-71.

Breikss, Ivars P., to Honeywell Inc. Electrical apparatus. 3,500,331, 3-10-70, Cl. 340-172.5

Breikss, Ivars P., to Honeywell Inc. Digitally programmable monostable multivibrator. 3,539,926, 11-10-70, Cl. 328-41.

Breikss, Ivars P., to Honeywell, Inc. Digital FM discriminator. 3,548,328, 12-15-70, Cl. 329-126.

Breil, Heinz: *See—*
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Breiling, Hans Georg: *See—*
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Breimer, Hendrik, to U.S. Philips Corporation, mesne. Amplifier including a delay line to sharpen video pulses. 3,508,082, 4-21-70, Cl. 307n268.

Breiner, Robert; and Thaler, Hans, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. After-condensation of polycondensation polymers in an electrical high frequency field. 3,535,285, 10-20-70, Cl. 260-75.

Breiss, Jean: *See—*
Tourdot, Jacques; and Breiss, Jean,3,547,573.

Breitbach, Fritz; and Choulat, Gustav, to Still, Carl. Apparatus for decomposing ammonia. 3,505,027, 4-7-70, Cl. 23-277.

Breite, Karl-Heinz: *See—*
Kull, Eberhard; Wetzke, Bernhard; Griebel, Walter; Breite, Karl-Heinz; and Wiesmair, Heinrich,3,526,313.

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Breitenstein, Charles T.; Pearl, Donald C.; and Budner, Leonard L., to Rowe International, Inc., mesne. Bulk milk dispenser system. 3,498,502, 3-3-70, Cl. 222-36.

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Breitfuss, Thomas K., to Hydro Conduit Corporation. Method for pressure molding hollow cylindrical structures. 3,492,395, 1-27-70, Cl. 264-308.

Breitholtz, Bo, to Allmanna Svenska Elektriska Aktiebolaget. Direct current breaker. 3,522,472, 8-4-70, Cl. 315-126.

Breithor, Joachim-Hans. Shoehorn with an elongated handle. 3,501,073, 3-17-70, Cl. 223-118.

Breitkopf, Stephen H., to American Hospital Supply Corporation. Roll core supporting device. 3,532,285, 10-6-70, Cl. 242-68.1

Breitling, Wilhelm, to Triumph Werke Aktiengesellschaft. Control magnet arrangement. 3,506,189, 4-14-70, Cl. 235-58.

Breitner, Edith Clara: *See—*
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Breitschwerdt, Werner, to Daimler-Benz Aktiengesellschaft. Safety steering wheel. 3,548,676, 12-22-70, Cl. 74-552.

Breitschwerdt, Werner; and Andres, Rudolf, to Daimler-Benz Aktiengesellschaft. Installation for the hydraulic actuation of adjusting mechanism in vehicles, especially in motor vehicles. 3,543,041, 11-24-70, Cl. 307-10.

Breitsprecher, Charles O.; and Klessig, Ernst F., to Racine Hydraulics, Inc. Pressure reducing valve. 3,489,163, 1-13-70, Cl. 137-116.3

Breitwieser, Heinz; and Heinz, Otto, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Decorative sheets made of plastics. 3,503,839, 3-31-70, Cl. 161-130.

Brekke, Harvey R. Portable electrically actuated roadside warning light. 3,500,465, 3-10-70, Cl. 340-119.

Brelje, Ralph W. Low voltage warning device. 3,533,094, 10-6-70, Cl. 340-248.

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Bremer, Fred C.Fisherman's water analyzing apparatus. 3,530,610, 9-29-70, Cl. 43-11.

Bremer, John W., to General Electric Company. Fault tolerant superconductive memory. 3,528,066, 9-8-70, Cl. 340-173.1

Bremer Vulkan Schiffbau und Maschinenfabrik: *See—*
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Bremmer, Bart J.; and Sonnabend, Lawrence F., to Dow Chemical Company, The. Process for impregnating wood and products thereof. 3,519,476, 7-7-70, Cl. 117-136.

Bremmer, John F.: *See—*
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Bremner, Raymond Muir. Vibratory towing head. 3,543,377, 12-1-70, Cl. 29-234.

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Brenan, Robert R.; and Hoskinson, James N., to Sylvania Electric Products, Inc. Process for producing solderable aluminum materials. 3,489,657, 1-13-70, Cl. 204-38.

Brendel, Gottfried J., to Ethyl Corporation. Synthesis of branched chain alkenols. 3,493,623, 2-3-70, Cl. 260-632.

Brendel, Gottfried J., to Ethyl Corporation. Alkali metal aluminum complexes and their preparation. 3,506,700, 4-14-70, Cl. 260-448.

Brendel, Hans Helmut: *See—*
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Brendle, Thomas A., to Audn Corporation. Locomotive engine performance system including the multiplication of analog and digital signals. 3,546,441, 12-8-70, Cl. 235-150.52

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Brendzel, Henry T., to Bell Telephone Laboratories, Incorporated. Nonsaturating transformer amplifier. 3,541,461, 11-17-70, Cl. 330-10.

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Brennan, Edward J., to Universal Oil Products Company. Front folding tray for a vehicle seat. 3,488,089, 1-6-70, Cl. 297-162.

Brennan, Edward L.; and Geminder, John J., to Pfizer, Chas., & Co., Inc. Preparation of non-caking heat-stable granular food grade materials. 3,492,128, 1-27-70, Cl. 99-95.

Brennan, Edward N.; and Harris, Clifford P. Telephone microphone cutoff. 3,518,380, 6-30-70, Cl. 179-167.

Brennan, Francis P. Wardrobe hanger bar. 3,519,139, 7-7-70, Cl. 211-124.

Brennan, George Andrew. Adhesive coated articles. 3,501,327, 3-17-70, Cl. 117-12.

Brennan, George J., to ESB Incorporated. Method of making a battery. 3,514,342, 5-26-70, Cl. 136-176.

Brennan, James H., to Emhart Corporation. Refrigeration system. 3,499,295, 3-10-70, Cl. 62-81.

Brennan, James H., to Emhart Corporation. Refrigerated display case. 3,528,258, 9-15-70, Cl. 62-256.

Brennan, James H., to Emhart Corporation. System of refrigeration. 3,529,436, 9-22-70, Cl. 62-272.

Brennan, James H., to Emhart Corporation. Refrigerated cutting room. 3,529,439, 9-22-70, Cl. 62-419.

Brennan, James H., to Emhart Corporation. Constant temperature refrigerated equipment. 3,531,945, 10-6-70, Cl. 62-234.

Brennan, James H.; and Burtis, Winfield R., to Emhart Corporation. Refrigerated equipment. 3,501,925, 3-24-70, Cl. 62-256.

Brennan, James P., to Monsanto Company. Process for preparing phosphine oxides. 3,520,939, 7-21-70, Cl. 260-606.5

Brennan, John F., to Universal Oil Products Company. Telomerization of isoprene. 3,510,536, 5-5-70, Cl. 260-680.

Brennan, Martin J. Cleaning implement with swivel-mounted head. 3,506,996, 4-21-70, Cl. 15-144.

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Brenneisen, Kurt, to Sandoz Ltd. Reactive monoazo pyrazolone dyes. 3,542,753, 11-24-70, Cl. 260-153.

Brenneke, Arthur M.; and Gay, Errol J., to TRW Inc. Packed bowl, positively scavenged, weir type carburetor. 3,540,701, 11-17-70, Cl. 261-36.

Brenneman, Terrell F.; Hays, Donald F., Jr.; and Morrow, Robert S., to IRD Mechanalysis, Inc. Proximity transducer. 3,541,394, 11-17-70, Cl. 317-99.

Brennen, Robert W., to United States of America, Navy. Differential two-way comparator. 3,538,445, 11-3-70, Cl. 328-147.

Brennen, William T.; and Schoonover, George H., to Air Reduction Company, Incorporated. Underground bulk storage system for cryogenic liquid. 3,543,530, 12-1-70, Cl. 62-45.

Brenner, Charles: *See—*
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Brenner, Charles H., to United States of America, Air Force. Binary sequence pattern monitor apparatus. 3,506,962, 4-14-70, Cl. 340-146.1

Brenner, Gereld S.: *See—*
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Brenner, Miron; and Tirosh, Dov. Adaptive servo control system for machine tools. 3,526,903, 9-1-70, Cl. 318-561.

Brenner, Morris. Portable alarm. 3,488,651, 1-6-70, Cl. 340-283.

Brenner, Raymond P., to McDonnell Douglas Corporation. Restraint assembly. 3,493,210, 2-3-70, Cl. 248-361.

Brenner, Robert A., to Whirlpool Corporation. Automatic washer having means to launder delicate fabrics. 3,540,239, 11-17-70, Cl. 68-12.

Brenner, Stanley S., to Lebb, John R., Distributors Inc. Bag dispenser with dispensing wheel. 3,503,481, 3-31-70, Cl. 194-10.

Brenot, Claude, to CSF-Compagnie Generale de Telegraphie Sans Fil. Gas-bearing gyroscopes including a rotary bearing member. 3,522,737, 8-4-70, Cl. 74-5.7

Brenschede, Wilhelm; Marzolph, Herbert; Nogaj, Alfred; Reichardt, Helmut; Reichle, Alfred; and Wandel, Martin, to Farbenfabriken Bayer Aktiengesellschaft. Acrylonitrile polymers plasticized with phenolic esters of alkyl sulphonic acids. 3,535,251, 10-20-70, Cl. 260-30.8

Brenschede, Wilhelm: *See—*
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Brent, George. Cigarette with filter. 3,515,151, 6-2-70, Cl. 131-265.

Brenter, Erich. Snow runner. 3,545,785, 12-8-70, Cl. 280-16.

Brenteson, Allen J., to Rohm & Haas Company. Quick-killing herbicide-oil mixture. 3,551,134, 12-29-70, Cl. 17-118.

Brepoels, Joseph Rene; and Busschots, Armand August, to Poudreries Reunles de Belgique. Process for obtaining favourable physiological effects on cultivated plants. 3,527,594, 9-8-70, Cl. 71-105.

Bresaola, Luigi. Device for preparing infusion express coffee to be collected in a jug. 3,505,947, 4-14-70, Cl. 99-283.

Brescia, Riccardo; and Baratto, Elia, to Olivetti, Ing. C., & C. S.p.A. Digital position measuring device. 3,531,800, 9-29-70, Cl. 340-347.

Bresee, Heber J.; and Wilson, George R., to Tektronix, Inc. PN junction gated field effect transistor having buried layer of low resistivity. 3,538,399, 11-3-70, Cl. 317-235.

Bresley, Lloyd J.; and Sharp, Edwin H., to Hollingshead, R. M., Corporation. Can neck placing apparatus. 3,550,240, 12-29-70, Cl. 29-208.

Breslin, John J., to Beamco, Inc. Vacuum cleaner filter condition sensing system. 3,505,791, 4-14-70, Cl. 55-274.

Breslin, John J., to Beamco, Inc. Electric vacuum cleaning and cleaning tool control system. 3,525,876, 8-25-70, Cl. 307-22.

Breslin, John J., to Beamco, Inc. Electrical connector. 3,537,064, 10-27-70, Cl. 339-129.

Breslow, David S., to Hercules Incorporated. Polyfunctional carbonyl nitriles oxides. 3,504,017, 3-31-70, Cl. 260-482.

Breslow, David S., to Hercules Incorporated. Heat curable composition. 3,534,011, 10-13-70, Cl. 260-94.9

Breslow, David. Battery driven ashtray. 3,507,445, 4-21-70, Cl. 232-1.

Breslow, Jeffrey D., to Glass, Marvin, & Associates. Balloon kicking game apparatus. 3,517,934, 6-30-70, Cl. 273-95.

Breslow, Jeffrey D., to Glass, Marvin, & Associates. Card game apparatus. 3,524,645, 8-18-70, Cl. 273-1.

Breslow, Jeffrey D., to Glass, Marvin, & Associates. Electric pickle jar game. 3,547,436, 12-15-70, Cl. 273-1.

Bresnick, Herbert Leo, to Xerox Corporation. Imaging system. 3,549,447, 12-22-70, Cl. 156-230.

Bresowar, Allan F.: *See—*
Braun, Fred; and Bresowar, Allan F.,3,524,617.

Bresquar, Valerio: *See—*
Benetta, Gianni; Bresquar, Valerio; Gatta, Giorgio; and Testa, Francesco,3,546,193.

Bressan, Giancarlo: *See—*
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Bressanelli, Jerome P.: *See—*
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Bresser, Henry W. Programmed central control greenhouse irrigation system. 3,524,471, 8-18-70, Cl. 137-624.12

Bressickello, Tony J. Food display and warming device. 3,502,020, 3-24-70, Cl. 99-443.

Bressler, Reinhard G. Thermoelectric device with fluid thermoelectric element. 3,508,974, 4-28-70, Cl. 136-205.

Bresson, Clarence R., to Phillips Petroleum Company. Oxidation of aralkyl compounds. 3,504,022, 3-31-70, Cl. 260-524.

Bresson, Clarence R.; and Stapp, Paul R., to Phillips Petroleum Company. Polymers plasticized by bis(3-haloalkoxy)methanes. 3,527,727, 9-8-70, Cl. 260-31.8

Bresson, Richard Joseph; and Elton, Robert George, to Eastman Kodak Company. Adjustable low-light signal. 3,500,731, 3-17-70, Cl. 95-10.

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Desty, Denis Henry; Bretherick, Leslie; and Webb, Michael Guthrie,3,503,214.
Desty, Denis Henry; Bretherick, Leslie; and Webb, Michael Guthrie,3,503,508.

Breton, Ernest J.; Cameron, Curtis B.; and Murvine, Robert E., to Du Pont de Nemours, E. I., and Company. Lubricant producing system. 3,513,084, 5-19-70, Cl. 208-46.

Breton, Ernest J.; and Murvine, Robert E., to Du Pont de Nemours, E. I., and Company. Lubricant producing system. 3,507,775, 4-21-70, Cl. 208-46.

Bretonniere, Serge; Chevrier, Jean-Pierre; and Gabilly, Yves, to Etat Francais, represente par le Ministere de l' Equipement, Laboratoire Central des Ponts et Chaussees. Method and apparatus for measuring apparent density by gamma radiation. 3,531,643, 9-29-70, Cl. 250-83.3

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Bretthauer, Hermann, to Rollei-Werke Franke & Heidecke. Flash attachment for photographic cameras. 3,488,486, 1-6-70, Cl. 240-1.3

Bretthauer, Hermann; Hamm, Heinz; and Madge, Joachim. Photographic mirror reflex camera with penta prism focusing finder. 3,487,760, 1-6-70, Cl. 95-42.

Bretti, Franco, to Olivetti, Ing., C., & C., S.p.A. Tape cassette. 3,534,894, 10-20-70, Cl. 226-182.

Brettingen, David L. Blocks including means for interlocking them at plural angles. 3,487,579, 1-6-70, Cl. 46-25.

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Brettrager, Henry J. Recirculating ball bearing structure for mounting a machine tool slide. 3,511,545, 5-12-70, Cl. 308-6.

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Breuer, David Roy, to TRW Inc. Differential low level comparator. 3,492,499, 1-27-70, Cl. 307-235.

Breuer, Erich; and Kielhorn, Werner, to Aktiengesellschaft Brown, Boveri & Cie. Device for the uniform support of metallic workpieces directly heated by electric current. 3,509,315, 4-28-70, Cl. 219-156.

Breuer, Erich; and Smuda, Otto, to Aktiengesellschaft Brown, Boveri & Cie. Melting or holding furnace structure utilizing pressurized gas for discharge of molten material. 3,504,899, 4-7-70, Cl. 266-38.

Breuer, Glenn D.; and Stairs, Colin M., to General Electric Company. High voltage DC transmission terminal circuit. 3,531,710, 9-29-70, Cl. 321-14.

Breuer, Hans-Jurgen, to Telefonaktiebolaget L M Ericsson. Connection for reducing the loss of effect in a feed-back connected transistor amplifier. 3,546,613, 12-8-70, Cl. 330-20.

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Breuer, Hermann, to Squibb, E. R., & Sons, Inc. 3-Amino-5-(nitrofuryl)-1,2,4-oxadiazole derivatives. 3,493,565, 2-3-70, Cl. 260-240.

Breuer, Hermann, to Squibb, E. R., & Sons, Inc. Nitrofuran derivatives of pseudoureas. 3,549,625, 12-22-70, Cl. 260-240.

Breuer, Hermann; Hoehn, Hans; and Roesch, Egon, to Squibb, E. R., & Sons, Inc. Compositions and methods for producing a muscle relaxing effect in an animal with 2,3-substituted -6-amino-4-quinazolones. 3,515,787, 6-2-70, Cl. 424-251.

Breuer, Karl, to Demag Aktiengesellschaft. Joint arrangement for angular and axial movement. 3,540,232, 11-17-70, Cl. 64-8.

Breuer, Miklos Moshe: *See—*
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Breukink, Bernard; Fossen, Josias; and Martens, Wietze, to U.S. Philips Corporation, mesne. Television system with auxiliary information during the vertical retrace. 3,507,985, 4-21-70, Cl. 178-5.6

Breukink, Carel J.; Vermeulen, Jacob; and van der Zwan, Arend, to Shell Oil Company. Production of fibrous filamentous products. 3,542,909, 11-24-70, Cl. 264-53.

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Breunig, Anton, to Heidelberger Druckmaschinen Aktiengesellschaft. Drive and coupling for a rotary printing press with in-line printing mechanisms. 3,511,179, 5-12-70, Cl. 101-183.

Breuning, Erich E., to Snap-Tite, Inc. Quick connect high pressure coupling. 3,498,324, 3-3-70, Cl. 137-614.04

Breuning, Ernst. Device for the production of yogurt. 3,505,735, 4-14-70, Cl. 31-2.

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Brewer, Bruce Leroy, to Alliance Machine Company, The. Charging apparatus. 3,487,957, 1-6-70, Cl. 214-18.

Brewer, C., and Company, Limited: *See—*
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Brewer, Charles C.; Fritz, Richard C.; Killian, Charles R.; and Moe, James M., said Killian and Brewer assors to Foster Grant Co., Inc., and said Fritz and Moe assors to Chemetron Corporation. Dehydrogenation and methanation catalyst and process. 3,505,422, 4-7-70, Cl. 260-669.

Brewer, Charles C.; and Killian, Charles R., to Foster Grant Co., Inc. Catalytic hydrocracking and desulfurization process. 3,505,209, 4-7-70, Cl. 208-112.

Brewer Engineering Laboratories, Inc.: *See—*
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Brewer, Forrest A.: *See—*
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Bogart, Harold N.; Brewer, George E. F.; and Burnside, Gilbert L.,3,498,898.
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Brewer, Given Ankeny, to Brewer Engineering Laboratories, Inc. Torquemeter. 3,537,304, 11-3-70, Cl. 73-136.
Brewer, Henry E. Chamber lubricating tool for shotguns. 3,536,160, 10-27-70, Cl. 184-1.
Brewer, John F.; Shrader, Ronald E.; and Schilling, Louis C., to Copolymer Rubber & Chemical Corporation. Means and method for drying wet elastomeric crumb. 3,525,162, 8-25-70, Cl. 34-10.
Brewer, Lee M.; and Rohde, Robert P., to General Motors Corporation. Engine idle speed governor and throttle control. 3,537,433, 11-3-70, Cl. 123-108.
Brewer, Max E. Mortar spreader. 3,545,159, 12-8-70, Cl. 52-749.
Brewer, Silas H., to United States of America, Air Force. Method and apparatus for determining the accuracy of the reflecting surface of a paraboloidal reflector in space. 3,518,004, 6-30-70, Cl. 356-124.
Brewin, Glendon C.; and Brewin, Peter M. Folding rigid-walled cabin. 3,521,926, 7-28-70, Cl. 296-27.
Brewin, Peter M.: *See—*
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Brewster, Arthur Edward, to International Standard Electric Corporation. Magnetic recording head having constant-width recording gap subjected to decaying amplitude bias. 3,549,824, 12-22-70, Cl. 179-100.2
Brewster, Gordon F.; and Weidel, Robert A., to Bausch & Lomb Incorporated. Titanium phosphate superflint glass. 3,490,928, 1-20-70, Cl. 106-47.
Brewster, John L., to Field Emission Corporation. Field reversal type pulse generator having a shorting switch in the form of a plurality of parallel spark gaps. 3,551,677, 12-29-70, Cl. 250-93.
Brewster, Phillip W., to Esso Research and Engineering Company. Heat transfer and quench oil. 3,489,619, 1-13-70, Cl. 148-29.
Brewster, Phillip W.; and Pattenden, Warren C., to Esso Research and Engineering Company. Insulating oil compositions containing acenaphthene or acenaphthylene. 3,549,537, 12-22-70, Cl. 252-63.
Brex Corporation: *See—*
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Brey, James R., to Texas Instruments, Incorporated. Precision highline pickup removal from a recorded seismic trace. 3,530,431, 9-22-70, Cl. 340-15.5
Brey, Wilhelm; and Lancaster, Arthur M., to Firestone Tire & Rubber Company, The. Tire body centering chuck. 3,492,184, 1-27-70, Cl. 156-414.
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Brezinski, Richard R., to General Motors Corporation. Self-locking tie rod adjuster. 3,496,800, 2-24-70, Cl. 74-586.
Brian, James A., to Crown Zellerbach Corporation. Portable beverage cooler. 3,511,429, 5-12-70, Cl. 229-31.
Brian, Robert Coles; and Bland, Peter Douglas, to Imperial Chemical Industries Limited. Herbicide-amine oxide compositions and their use. 3,527,593, 9-8-70, Cl. 71-94.
Briar, Jack E.; and Conner, Alvin E., to Dazey Products Company. Removable operating lever for electric can opener. 3,538,787, 11-10-70, Cl. 74-523.
Brice, George H., to Uniroyal, Inc. Method of curing a solution of rubber and of foamed rubber. 3,489,697, 1-13-70, Cl. 260-2.5
Brice, William A.: *See—*
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Brichard, Claude. Photoelectric defect detector which determine coordinate of defect by magnitude of scanning voltage and current at position of defect. 3,543,033, 11-24-70, Cl. 250-219.
Brichard, Edgard; and Lambert, Michel, to Glaverbel S.A. Glass melting tank with bottom cooling sill. 3,536,470, 10-27-70, Cl. 65-337.
Brichard, Edgard; Valembois, Jean Adolphe; and Raes, Andre, to Glaverbel S.A. Method for optimally cutting successive panels of pieces from a sheet or strip. 3,490,147, 1-20-70, Cl. 33-1.
Bricher, Charles W.; and Hawley, James E. Developing container. 3,545,363, 12-8-70, Cl. 95-89.
Bricker, Carl E.; Hillegass, Kenneth P.; and Cook, Albert W., to Goodyear Tire & Rubber Company, The. Brake disc with yieldable register. 3,491,860, 1-27-70, Cl. 188-218.
Bricker, Harry Chinn, Jr., to AMP Incorporated. Electrical clamp. 3,544,956, 12-1-70, Cl. 339-264.
Bricker, Maurice H., to Micromatic Hone Corporation. Device for reorienting parts. 3,537,566, 11-3-70, Cl. 198-24.
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Brockmann, Hans-Jurgen. Circuit arrangement for static auxiliary deflection of at least one electron beam. 3,519,875, 7-7-70, Cl. 315-13.

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Brockway, Ellsworth M.; and Nord, Donald D., to Bausch & Lomb Incorporated. Lens axial alignment method and apparatus. 3,507,597, 4-21-70, Cl. 356-110.

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Broerman, Arthur B.; and Roof, Lewis B., to Phillips Petroleum Company. Pneumatic amplifier sampling valve for chromatographic analyzers. 3,492,873, 2-3-70, Cl. 73-422.

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Brooks, Everett G.; and Gentelia, John S., to International Business Machines Corporation. Tracking analog to digital converter. 3,521,269, 7-21-70, Cl. 340-347.

Brooks, Fred A., to United States of America, Air Force. Voice signal processing system for multi-channel SSB transmitter. 3,495,177, 2-10-70, Cl. 325-159.

Brooks, Fred A. Analog voice signal processing in transmission circuits. 3,535,455, 10-20-70, Cl. 179-1.

Brooks, George Clyde: *See—*
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Brooks, George M., to Jerrold Electronics Corporation. Antenna rotor. 3,546,966, 12-15-70, Cl. 74-640.

Brooks, George M., to Jerrold Electronics Corporation, mesne. Microwave coupling device and mounting therefor. 3,550,043, 12-22-70, Cl. 333-26.

Brooks, George W.: *See—*
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Brooks, Gregory W.: *See—*
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Brooks, Holly M., nee Holly Brooks Hice, to Vari-Phase, Inc., mesne. Cooking support for shrimp. 3,540,369, 11-17-70, Cl. 99-426.

Brooks, Houston George, Jr., to American Cyanamid Company. Method for preparation of quinazolones. 3,526,627, 9-1-70, Cl. 260-251.

Brooks, Howard A.; and Curtiz, Thaddeus B., to KMS Industries, Inc. Geometric puzzle. 3,510,134, 5-5-70, Cl. 273-157.

Brooks, Howard A.; and Curtz, Thaddeus B., to KMS Industries, Inc. Coordinate word game apparatus. 3,545,761, 12-8-70, Cl. 273-130.

Brooks Instrument N.V.: *See—*
Van Der Windt, Leendert Johannes; and Jansen, Johannes, 3,547,410.

Brooks, James N.: *See—*
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Brooks, John A.; and Lovell, Lyle M., to Standard Oil Company (Indiana). Start-up method for a low-temperature hydrogenation process. 3,539,500, 11-10-70, Cl. 208-143.

Brooks, Julius E. Dual-bell trumpet or similar-type horn. 3,529,505, 9-22-70, Cl. 84-387.

Brooks, Kenneth Raymond: *See—*
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Brooks, Leslie J., to Rolls-Royce Limited. Mounting means for an aircraft engine. 3,519,227, 7-7-70, Cl. 244-55.

Brooks, Lester A.; and O'Shaughnessy, Robert T., to Vanderbilt, R. T., Company, Inc. Ethylene-propylene-diene terpolymer vulcanizates with limited blooming. 3,491,069, 1-20-70, Cl. 260-79.5

Brooks, Marvin V., to PPG Industries, Inc. Insulated curtain wall construction with a gutter flange and means of egress. 3,488,906, 1-13-70, Cl. 52-303.

Brooks, Marvin V., to PPG Industries, Inc. Curtain wall construction. 3,509,672, 5-5-70, Cl. 52-235.

Brooks, Neal: *See—*
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Brooks Products, Inc.: *See—*
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Brooks, Richard; and Tasiaux, Paul, to Imperial Chemical Industries Limited, and Solway & Cie. Production of sodium bicarbonate using baffled cooling tube compartments in a tower. 3,551,097, 12-29-70, Cl. 23-65.

Brooks, Robert E., to TRW Inc. Multipass holographic interferometer. 3,528,719, 9-15-70, Cl. 350-3.5

Brooks, Robert E., to TRW Inc. Small-angle interferometer for making holograms. 3,533,675, 10-13-70, Cl. 350-3.5

Brooks, Robert E.; and Heflinger, Lee O., to TRW Inc. High resolution holographic beam reversal technique. 3,514,176, 5-26-70, Cl. 350-3.5

Brooks, Robert E.; Heflinger, Lee O.; and Wuerker, Ralph F., to TRW Inc. Method for encoding and decoding information. 3,519,322, 7-7-70, Cl. 350-3.5

Brooks, Robert E.; Heflinger, Lee O.; and Wuerker, Ralph F., to TRW Inc. Holographic recording via three-level solid state laser material. 3,533,674, 10-13-70, Cl. 350-3.5

Brooks, Robert E.: *See—*
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Brooks, Robert R.: *See—*
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Brooks, Vern E.; and Walton, Erlen B., to Eaton Yale & Towne, Inc. Control for a hydrostatic transmission. 3,525,266, 8-25-70, Cl. 74-481.

Brooks, Warren B.; Baker, Charles Ovid; and Jones, Eugene L., to Mobil Oil Corporation. Subsea production system. 3,520,358, 7-14-70, Cl. 166-0.5

Brooks, Willard A.: *See—*
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Brooks, William E.: *See—*
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Brooks, William. Shift register control circuit for variable message displays. 3,493,933, 2-3-70, Cl. 340-168.

Brooks, William. Variable message displays. 3,493,957, 2-3-70, Cl. 340-336.

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Broomall, Robert M.: *See—*
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Broome, John, to Raymond, Samuel. Apparatus for separating electrophoretically active substances. 3,506,554, 4-14-70, Cl. 204-180.

Broome, Oscar E. Table with readily attachable legs. 3,530,804, 9-29-70, Cl. 108-156.

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Broseus, Pierre J.; and Glucksman, Dov Z., to Thermo Electron Corporation. Radiant and convective heater. 3,509,867, 5-5-70, Cl. 126-116.

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Broske, William F., to AMP Incorporated. Electrically-actuated, powder-operated, rail bonding connector. 3,495,778, 2-17-70, Cl. 238-151.

Bross, Charles F., to Merrill Machinery Co. Pill box filler. 3,530,639, 9-29-70, Cl. 53-78.

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Bross, William T., to Liebel-Florshein Company. Relay control circuit. 3,523,219, 8-4-70, Cl. 317-137.

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Brosseau, Louis Philippe. Hanger assembly for suspended concrete forms. 3,525,495, 8-25-70, Cl. 248-327.

Brossi, Arnold; Gerecke, Max; and Kyburz, Emilio, to Hoffmann-La Roche Inc. Pivaloyl and undecanoyl esters of griseofulvol. 3,518,283, 6-30-70, Cl. 260-346.2

Brossi, Arnold; and Pecherer, Benjamin, to Hoffmann-La Roche Inc.Alkoxy-substituted 6-hydroxy-5H-dibenzo[a,c] cycloheptene-7-carbonitriles and preparation from alkoxy-substituted 6-amino-5H-dibenzo[a,c] cycloheptene-7-carbonitriles, by hydrolysis. 3,495,256, 2-10-70, Cl. 260-465.

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Brotherton, Thomas K.; Lynn, John W.; and Knopf, Robert J., to Union Carbide Corporation. Polyisocyanates and reaction products of the same. 3,551,475, 12-29-70, Cl. 260-468.

Brotz, Walter: *See—*
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Brotzmann, Karl: *See—*
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Brotzmann, Karl; and Morgan, Eric R., to Dortmund-Horder Huttenunion Aktiengesellschaft. Steel making processes. 3,512,957, 5-19-70, Cl. 75-49.

Broughton, Donald B., to Universal Oil Products Company. Recovery of aromatics with improved xylene purity. 3,520,946, 7-21-70, Cl. 260-674.

Broughton, Donald B., to Universal Oil Products Company. Baffled chamber for a plurality of contact beds to preclude diffused fluid flow. 3,523,762, 8-11-70, Cl. 23-285.

Broughton, Donald B.; and de Rosset, Arman J., to Universal Oil Products Company. Hydrocarbon separation via crystallization methods. 3,544,646, 12-1-70, Cl. 260-674.

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Brous, Jack, to RCA Corporation. Traveling wave tube with evaporated nickel attenuator coating and method of manufacture thereof. 3,544,832, 12-1-70, Cl. 315-3.5

Brousmiche, Roger A.H., to Ateliers de Constructions Electriques de Charleroi (ACEC), Societe Anonyme. Color display CRT indexing system. 3,514,531, 5-26-70, Cl. 178-5.4

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Broussard, Leo P., to Shell Oil Company. Apparatus and method for working a well with plural levels of perforations. 3,527,302, 9-8-70, Cl. 166-297.

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Broussard, Paul Daniel. Stringed musical instrument body construction and finish. 3,515,024, 6-2-70, Cl. 84-291.

Broussard, Paul Daniel. Quadruple sound output loudspeaker enclosure. 3,517,769, 6-30-70, Cl. 181-31.

Broussard, Paul Daniel. Stringed musical instrument neck incorporating automatic warp and bow prevention means. 3,535,975, 10-27-70, Cl. 84-293.

Broussard, Paul Daniel. Plural electromagnetic pickup system for stringed musical instrument with tone and volume controls. 3,544,696, 12-1-70, Cl. 84-1.15

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Brouwer, Charles W.; Bucheister, Henry C.; and Tata, Raymond V., to Leesona Corporation. Textile equipment. 3,524,311, 8-18-70, Cl. 57-54.

Brouwer, Charles W.; Bucheister, Henry Chain; and Tata, Raymond V., to Leesona Corporation. Bobbin storage and delivery installation. 3,506,106, 4-14-70, Cl. 198-33.

Brouwer, Charles W.; Bugbee, Carlton N., Jr.; Guerin, David T.; and Tata, Raymond V., to Leesona Corporation. Bobbin orienting installation. 3,538,990, 11-10-70, Cl. 198-33.

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Brouwer, Frans, to Stewart-Warner Corporation. Facsimile carrier oscillator circuit including means for synchronizing the carrier with respect to the scanner. 3,522,375, 7-28-70, Cl. 178-69.5

Brouwer, Frans, to Stewart-Warner Corporation. Facsimile marking circuit. 3,534,165, 10-13-70, Cl. 178-6.6

Brouwer, Frans; and Sobchak, Frank L., to Stewart-Warner Corporation. Combination of facsimile transmitter and receiver operable in a feed through manner in both modes. 3,527,882, 9-8-70, Cl. 178-6.6

Brouwer, Gerardus Johannes; Van Dyken, John; and Oussoren, Klaas. Sod cutting apparatus. 3,509,944, 5-5-70, Cl. 172-19.

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Brouwer, Johannes M., to U.S. Philips Corporation. Dial controlled remote to local exchange repeater for a private exchange. 3,538,260, 11-3-70, Cl. 179-16.

Brouwer, Nicolaas L., to Aluminum Company of America. Apparatus and method for piercing holes in elastomeric articles. 3,524,046, 8-11-70, Cl. 219-384.

Brouwer, Willem, to Sanders Associates, Inc. Pressure compensated optical device. 3,498,695, 3-3-70, Cl. 350-179.

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Browder, Timothy J., Jr., to Parsons, Ralph M., Company, The. Method of sulfuric acid manufacture. 3,525,587, 8-25-70, Cl. 23-168.
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Brown, Alan K.; and Fair, Gordon L., to British Domestic Appliances Limited. Safety interlock for the access door of washing and the like machines. 3,535,896, 10-27-70, Cl. 68-12.
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Brown, Buck C., to Tracor, Inc. Color phase lock system for remotely located television camera. 3,493,680, 2-3-70, Cl. 178-69.5
Brown, Buck C., to Tracor, Inc. Method and apparatus for synchronizing television signals. 3,525,808, 8-25-70, Cl. 178-69.5
Brown, Buck C.; and Williams, Hugh C., to Presearch Incorporated. Cumulative enhancement signal processor. 3,531,802, 9-29-70, Cl. 343-17.1
Brown, Burnell E.: *See—*
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Brown, Calvin E., to Lane Company, Inc., The. Drop front cabinet having tiltable bin. 3,510,188, 5-5-70, Cl. 312-325.
Brown, Carl F.; Gooding, Chester M.; and Knight, Stiling F., to CPC International Inc.Method for the preparation of confectioners' fats. 3,512,994, 5-19-70, Cl. 99-118.
Brown, Charles A., to General Cable Corporation. Control of the dimensions of multiple layers of extruded insulation. 3,502,752, 3-24-70, Cl. 264-40.
Brown, Charles A.; and Quatrochi, Lyle W., to International Rectifier Corporation. Semiconductor device assembly using heat-shrinkable tubing. 3,495,139, 2-10-70, Cl. 317-234.
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Brown, Charles Leslie Meredith, to Wigglesworth Limited, mesne. Substituted toluidides and compositions containing them. 3,544,587, 12-1-70, Cl. 260-326.3
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Brown, Cicero C. Tubing anchor and drain assembly. 3,497,001, 2-24-70, Cl. 166-120.
Brown, Cicero C., to Richfield Oil Corporation. Remote underwater wellhead connector. 3,521,909, 7-28-70, Cl. 285-3.
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Brown, Cicero. Expansible underreamer for drilling large diameter earth bores. 3,528,516, 9-15-70, Cl. 175-267.
Brown, Claude H., to Jet Research Center, Inc. Camouflet device. 3,517,469, 6-30-70, Cl. 52-155.
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Brown, Clayton S. Above surface observed marker secured to underground utilities, etc. to indicate their depth and direction. 3,523,515, 8-11-70, Cl. 116-114.
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Brown, David Scatcherd, to Parsons, Howard Grubb, Sir, & Company Limited. Reflecting members for optical instruments. 3,489,484, 1-13-70, Cl. 350-310.
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Brown, Dennis Cockburn, to Associated Engineering Limited. Heat exchangers. 3,521,707, 7-28-70, Cl. 165-152.
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Brown, Donald A.; and Leech, George William. Process for recovering copper from leach liquor. 3,535,218, 10-20-70, Cl. 204-108.
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Brown, Donald P.; Garlick, George F.; and Porter, Newell S., to United States of America, Atomic Energy Commission. Method for detecting one of heavy water and ordinary water in the presence of the other of heavy water and ordinary water. 3,538,434, 11-3-70, Cl. 324-58.5
Brown, Donald W., to Bell Telephone Laboratories, Incorporated. Impedance loss meter measuring voltage differences independently of signal source error by comparing test and reference voltages derived from a common source. 3,526,834, 9-1-70, Cl. 324-57.
Brown, Donald, to Westinghouse Air Brake Company. Fluidic safety interlock system. 3,536,086, 10-27-70, Cl. 137-81.5
Meininger, James L.; and Brown, Donald,3,499,599.
Brown, Duane C., to Brown, D., Associates, Inc. Self-calibrating multilaterative plate comparator. 3,487,547, 1-6-70, Cl. 33-1.
Brown, Dwight C. Fastener. 3,524,226, 8-18-70, Cl. 24-84.
Brown, Dwight C.: *See—*
Parks, Lloyd; and Brown, Dwight C.,3,531,114.
Brown, Dwight M.: *See—*
Wilson, O. C., Jr., 3,520,170.
Brown, Dwight M., Jr.: *See—*
Wilson, O. C., Jr., 3,520,170.
Brown, Earl F.; and Hempstead, Charles F., to Bell Telephone Laboratories, Incorporated. Laser beam typesetter. 3,506,779, 4-14-70, Cl. 178-6.6
Brown, Earl L., to Carrier Corporation. Refrigeration system having generator temperature control means. 3,514,965, 6-2-70, Cl. 62-148.
Brown, Earl L.: *See—*
Murphy, Patrick L.; and Brown, Earl L.,3,520,145.
Brown, Earle S., to Union Carbide Corporation. Catalytic deamination of alkyl diaminobenzenes to alkyl aminobenzenes. 3,532,754, 10-6-70, Cl. 260-578.
Brown, Edgar D., Jr., to General Electric Company. Haloalkyl-containing silicone fluids. 3,505,378, 4-7-70, Cl. 260-448.2
Brown, Edgar D., Jr., to General Electric Company. Iodoethyl-substituted organosilicon compound lubricating compositions and use thereof. 3,515,670, 6-2-70, Cl. 252-49.6
Brown, Edward A., to Searle, G. D., & Co.3-Oxygenated 4',5-dihydrospiro [estra-4,9-diene- 17,2'(3'H)-furans] and congeners. 3,509,135, 4-28-70, Cl. 260-239.55
Brown, Edward A., to Searle, G. D., & Co.3-[17β-Hydroxy-7α-(lower alkyl) thio-3-oxoandrost- 4-en-17α yl]propionic acid γ-lactones and congeners. 3,509,136, 4-28-70, Cl. 260-239.57
Brown, Edward A., to Searle, G. D., & Co. 21-Tri(lower alkyl)-siloxypregnane-3,20-diones. 3,513,163, 5-19-70, Cl. 260-239.55
Brown, Edward A., to Eastman Kodak Company. Textile apparatus. 3,535,755, 10-27-70, Cl. 28-1.4
Brown, Edward A., to Searle, G. D., & Co.3-Oxygenated 3-(9α,11β-dichloro-17β-hydroxy- androsten-17α-yl) propionic acid γ-lactones and congeners. 3,539,558, 11-10-70, Cl. 260-239.57
Brown, Edward J.; and Kloostra, Marvin Leon, to Titus Manufacturing Corporation. Constant volume regulators and air distribution apparatus embodying same. 3,540,484, 11-17-70, Cl. 138-43.
Brown, Ellsworth R., to Armstrong Rubber Company, The. Pneumatic tire. 3,517,720, 6-30-70, Cl. 152-352.
Brown, Elmer L. Hay bale stacker. 3,487,955, 1-6-70, Cl. 214-6.
Brown Engineering Company, Inc.: *See—*
McLain, John H.; and Porter, Bobby J., 3,491,779.
Rhinehart, Richard W.; Conn, Henry L.; and Morris, Howard E., 3,517,403.
Tushim, Michael P., 3,543,318.
Brown Equipment & Service Tools, Inc.: *See—*
Brown, Cicero C.; and Mott, James D., 3,504,936.
Brown, Erik, to Brown Products, Inc. Apparatus for forming spiral tubing. 3,538,817, 11-10-70, Cl. 93-80.
Brown, Ernest Charles, to Wolverine Corporation. Apparatus for gaseous treatment of moving webs. 3,525,164, 8-25-70, Cl. 34-155.
Brown, Ernest; and Nagel, Dave D., to American Machine & Foundry Company. Speed control device for pipeline inspection apparatus. 3,495,546, 2-17-70, Cl. 104-155.
Brown, Ethan Alan. Novel sodium chloride encapsulated injectionable substances. 3,541,201, 11-17-70, Cl. 424-7.
Brown, Felix H.: *See—*
Schlein, Herbert N.; and Brown, Felix H.,3,537,786.
Brown Fintube Company: *See—*
Brown, John W., Jr., 3,511,490.
Brown, Ford J.; and Mueller, Ralph L., to Western Electric Company, Incorporated. Vibratory quartz tube assembly for advancing articles. 3,547,252, 12-15-70, Cl. 198-218.
Brown, Francis Barton: *See—*
Coberly, Clarence J.; and Brown, Francis Barton,3,494,640.
Coberly, Clarence J.; and Brown, Francis Barton,3,494,642.
Coberly, Clarence J.; and Brown, Francis Barton,3,508,773.
Brown, Francis E., to Gulf Oil Corporation, mesne. Adhesive, method of use and bonded articles. 3,503,529, 3-31-70, Cl. 214-10.5
Brown, Francis E.; and Anspon, Harry D., to Gulf Research & Development Company. Self-emulsifiable ethylene polymer compositions. 3,536,682, 10-27-70, Cl. 260-86.7
Brown, Frank M.; Burton, Jean A.; Helgeson, Gerald L.; and Willcox, Jesse A., to Hormel, Geo., A., & Company. Apparatus for deboning meat. 3,533,128, 10-13-70, Cl. 17-1.
Brown, Frank M.; Burton, Jean A.; Helgeson, Gerald L.; and Willcox, Jesse A., to Hormel, Geo., A., & Company. Bone pinning machine. 3,533,129, 10-13-70, Cl. 17-1.
Brown, Fred A., to Pitney-Bowes, Inc. Folder imprinter. 3,550,930, 12-29-70, Cl. 270-20.
Brown, Fred P., Jr., to Packaging Industries, Inc. Method for handling blisters or the like. 3,511,395, 5-12-70, Cl. 214-152.
Brown, Gaylord W., to Brown Machine Company of Michigan, Inc. Methods and apparatus for making containers. 3,499,068, 3-3-70, Cl. 264-68.
Brown, Gaylord W., to Brown Machine Company of Michigan, Inc. Method of making stackable containers and apparatus for their manufacture. 3,504,071, 3-31-70, Cl. 264-92.
Brown, Gaylord W., to Brown Machine Company of Michigan, Inc. Stockable container and apparatus for its manufacture. 3,527,380, 9-8-70, Cl. 220-97.
Brown, Gaylord W.; Johnson, Robert T.; and Jones, Elwyn, to Brown Machine Company. Apparatus and method for forming articles in a pair of incrementally advanced thermoplastic webs. 3,537,138, 11-3-70, Cl. 18-19.
Brown, Gaylord W.; and Otto, Melvin, Jr., to Brown Machine Company of Michigan, Inc. Differential pressure plastic forming machine partible mold mechanism for forming articles in a plastic sheet. 3,504,403, 4-7-70, Cl. 18-19.
Brown, Gaylord W.; and Rise, Donald J., to Brown Machine Company of Michigan, Inc. Differential pressure forming machine. 3,496,257, 2-17-70, Cl. 264-40.
Brown, Gaylord W.; and Schnepp, Bradley A., to Brown Machine Company of Michigan, Inc. Compact differential pressure forming machine. 3,513,505, 5-26-70, Cl. 18-19.
Brown, George D., to United States of America, Army. Direct current transformer. 3,529,231, 9-15-70, Cl. 321-2.
Brown, George H. Drop-center railroad car with turntable. 3,490,389, 1-20-70, Cl. 105-455.
Brown, George James: *See—*
Boyd, Douglas; and Brown, George James,3,548,400.
Brown, George J., to Transmetrics Incorporated. High-precision system for measuring an unknown fluid pressure and for generating a predetermined fluid pressure. 3,515,005, 6-2-70, Cl. 73-705.
Brown, George Nelson, to Du Pont de Nemours, E. I., and Company. Shredder. 3,545,686, 12-8-70, Cl. 241-47.
Brown, Gordon E.; and Huff, Richard R., to Monsanto Company. Novel wood structures and their manufacture. 3,519,468, 7-7-70, Cl. 117-65.2
Brown, Gordon H., to Whirlpool Corporation. Refuse compactor control circuit. 3,543,676, 12-1-70, Cl. 100-52.
Brown, Gordon H.; and Chandler, Robert M., to Whirlpool Corporation. Refuse compactor apparatus. 3,527,161, 9-8-70, Cl. 100-256.
Brown, Gordon H.: *See—*
Hinkel, Lester H.; Brown, Gordon H.; and Chandler, Robert M.,3,537,390.
Brown, Grace Wallace. Baby's bib with disposable front. 3,540,060, 11-17-70, Cl. 2-49.
Brown, Grant S. Apparatus for making plastic articles. 3,496,599, 2-24-70, Cl. 18-5.
Brown, Graydon L.; and Thomas, Bobby J., to Continental Oil Company. Method and apparatus for compositing seismic data. 3,496,530, 2-17-70, Cl. 340-15.5
Brown, Harmon W.; and Erickson, Raymond A., to Varian Associates. Total ion current monitoring electrode structure for cycloidal mass spectrometers. 3,497,688, 2-24-70, Cl. 250-41.9

Brown, Harold, Company: *See—*
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Stone, Dewey C., Jr., 3,507,329.

Brown, Harold E., to Tappan Company, The. Domestic electric appliance. 3,509,318, 4-28-70, Cl. 219-396.

Brown, Harry B. Automatic tapping machine control system. 3,539,904, 11-10-70, Cl. 321-45.

Brown, Harry W., to Longyear, E. J., Company. Slotted core lifter apparatus. 3,540,537, 11-17-70, Cl. 175-251.

Brown, Harry W.; and Fries, Donald W., to Cutler-Hammer, Inc. Air conditioner compressor and air fan speed controller. 3,517,523, 6-30-70, Cl. 62-180.

Brown, Hart. Contact process and apparatus. 3,549,526, 12-22-70, Cl. 210-33.

Brown, Harvey A.; Erickson, John G.; Husted, Donald R.; and Wright, Charles D., to Minnesota Mining and Manufacturing Company. Fluorinated sym-triazine derivatives. 3,515,603, 6-2-70, Cl. 149-109.

Brown, Henry R.; and Green, Elberson D., to United States of America, Navy, mesne. Real time passing scene display. 3,550,123, 12-22-70, Cl. 343-5.

Brown, Herbert L., Jr.: *See—*
Helms, John D.; and Brown, Herbert L., Jr.,3,505,493.
Helms, John D.; and Brown, Herbert L., Jr.,3,538,292.
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Brown, Horace D.: *See—*
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Brown, Howard W.: *See—*
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Brown, Hugh O.: *See—*
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Brown, I. Allen: *See—*
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Brown International Corporation: *See—*
Alexander, L. Bruce; Bushman, Ronald C.; and Holbrook, Franklin K., 3,507,392.
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Brown, Ivan E. Polyp clamp and applier therefor. 3,506,012, 4-14-70, Cl. 128-346.

Brown, Jack G.: *See—*
Beckham, Robert R.; Walters, Emmett L.; Brown, Jack G.; De Rose, Kenneth N.; and Ryan, Joseph D.,3,495,724.

Brown, Jack W.: *See—*
Didtel, Stewart R.; and Brown, Jack W.,3,534,990.

Brown, James A., Jr., to Du Pont de Nemours, E. I., and Company. Coating compositions containing perfluorohalocarbon polymer, phosphoric acid and aluminum oxide, boron oxide or aluminum phosphate. 3,489,595, 1-13-70, Cl. 117-72.

Brown, James A., to Dow Chemical Company, The. Powderless etching bath. 3,490,968, 1-20-70, Cl. 156-14.

Brown, James C.: *See—*
Fuchsman, Charles H.; and Brown, James C.,3,509,104.

Brown, James D., to Phillips Petroleum Company. Emulsion polymerization process utilizing a haloester and cuprous salt catalyst system. 3,547,862, 12-15-70, Cl. 260-93.5

Brown, James E., Jr.: *See—*
Beal, Charles B.; and Brown, James E., Jr.,3,528,429.

Brown, James H.; Young, William S.; and Deason, William M., to Dresser Industries, Inc. Electronic system for monitoring drilling conditions relating to oil and gas wells. 3,541,852, 11-24-70, Cl. 73-151.

Brown, James Marvin, to American Cyanamid Company. Softening agent for cotton and for synthetic textile substrates. 3,509,048, 4-28-70, Cl. 252-8.7

Brown, James T., to Bethlehem Steel Corporation. Latching device for double container pedestal. 3,525,307, 8-25-70, Cl. 105-366.

Brown, James W.; Mayer, Francis X.; and Kalina, Theodore, to Esso Research and Engineering Company. Iron ore reduction process. 3,551,138, 12-29-70, Cl. 75-26.

Brown, James W.; and Sale, Edwin E., to Esso Research and Engineering Company. Process of forming nonporous ferrous metal briquettes and resulting product. 3,540,922, 11-17-70, Cl. 117-127.

Brown, Jay B.: *See—*
Dawson, Joseph Carl; Brown, Jay B.; and Pryor, Euel C.,3,512,676.
Dawson, Joseph Carl; Brown, Jay B.; and Pryor, Euel C.,3,526,345.

Brown, Jept E., to Burlington Industries, Inc. Shuttleless loom tension pad stop motion. 3,500,875, 3-17-70, Cl. 139-336.

Brown, Jerald L., to Fife Manufacturing Company. Alignment sensing devices utilizing light- emitting semi-conductors. 3,495,089, 2-10-70, Cl. 250-219.

Brown, Jerry A.; and Hume, Clayton R., to Hamilton Cosco, Inc. Mirror assembly. 3,550,896, 12-29-70, Cl. 248-473.

Brown, Jesse E., to Zenith Radio Corporation. Radio or the like with control shaft extending through speaker diaphragm. 3,531,602, 9-29-70, Cl. 179-115.

Brown, Jesse J., Jr.; and Van Noy, Bryce W., to Sylvania Electric Products, Inc. Cathodoluminescent phosphors. 3,499,843, 3-10-70, Cl. 252-301.4

Brown, Jesse R.; and Hahl, Charles W., to Vortox Mfg. Company. Air cleaner. 3,535,853, 10-27-70, Cl. 55-337.

Brown, Joe R. Tubing anchor. 3,528,500, 9-15-70, Cl. 166-212.

Brown, John A., to Esso Research and Engineering Company. Tris(dinitratomethyl)trioxane. 3,531,500, 9-29-70, Cl. 260-340.7

Brown, John H.: *See—*
Carpenter, Richard D.; Schad, Jerry L.; Delozier, Jess M.; Brown, John H.; and Roy, William G.,3,531,323.

Brown, John Johnston; Hardy, Robert Allis, Jr.; and Nora, Carol Therese, to American Cyanamid Company. Substituted 7,8-dihydro-6-hydroxy-6,14-endo (etheno or ethano)codide-7-ketones and substituted 7,8-dhydro-6-hydroxy-6,14-endo(etheno or ethano)morphide-7-ketones. 3,488,354, 1-6-70, Cl. 260-285.

Brown, John Thomas L., to Gordos Corporation. Folder reed switches. 3,541,482, 11-17-70, Cl. 335-154.

Brown, John W., Jr., to Brown Fintube Company. Apparatus for introducing addition agent into molten steel. 3,511,490, 5-12-70, Cl. 266-36.
Schreier, Bernard Dov; and Brown, John,3,501,021.

Brown, Joseph Patrick, to Monsanto Chemicals Limited. Use of 1-2-dithiole-3-thione derivatives as vulcanization accelerators. 3,494,899, 2-10-70, Cl. 260-79.5

Brown, Joseph Patrick, to Monsanto Chemicals Limited. Herbicidal 1,2-dihydroquinolines and 1,2,3,4- tetrahydroquinolines. 3,539,578, 11-10-70, Cl. 260-287.

Brown, Joseph Reese, Jr., to Burroughs Corporation. Visual character display device. 3,505,650, 4-7-70, Cl. 340-172.5

Brown, Joseph Reese, Jr., to Burroughs Corporation. Method and apparatus for reading information from a memory. 3,533,081, 10-6-70, Cl. 340-172.5

Brown, Joseph Reese, Jr.: *See—*
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Brown, Judd A. Method and apparatus for forming felts and mats. 3,508,301, 4-28-70, Cl. 19-155.

Brown, Kenneth John, to Foxboro Company, The. Electrical barrier device. 3,527,985, 9-8-70, Cl. 317-16.

Brown, Kenneth William, to British Welding Research Association. Feeding of wire in electrode welding processes. 3,506,176, 4-14-70, Cl. 226-183.

Brown, Kenneth, to Square Tube Systems Limited. Connecting means for joining tubular members. 3,542,407, 11-24-70, Cl. 287-54.

Brown, Kenton J., to Beloit Corporation. Low speed refining of a papermaking pulp solution. 3,534,912, 10-20-70, Cl. 241-28.

Brown, Kenton J.; and Roerig, Arnold J., to Beloit Corporation. Pulping process including the transfer of wood chips from a first to a second digesting liquor. 3,537,953, 11-3-70, Cl. 162-52.

Brown, Kenton J.: *See—*
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Brown, Kevan: *See—*
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Cavalla, John Frederick; and Brown, Kevan,3,532,705.
Cavalla, John Frederick; and Brown, Kevan,3,536,727.

Brown, Kevan, to Wyeth, John, & Brother Limited, mesne. Method of relieving inflammation by administration of 2,4-diarylthiazole-5-alkanoic acids and derivatives thereof. 3,546,342, 12-8-70, Cl. 424-270.

Brown, Larry T., to LTV Aerospace Corporation. Fluid accelerometer. 3,541,865, 11-24-70, Cl. 73-515.

Brown, Lawrence H., to Edgcomb Steel Company. Apparatus for removing metallic slag from torch cutting operations. 3,526,395, 9-1-70, Cl. 263-45.

Brown, Leonard C., to Industrial Nucleonics Corporation. Method and apparatus for radiation measuring the mass of material having a spatially non-uniform mass distribution. 3,489,901, 1-13-70, Cl. 250-83.3

Brown, Leonard; and Booles, Ernest William, to William Cotton Limited. Full fashioned knitting machine. 3,514,977, 6-2-70, Cl. 66-126.

Brown, Lewis E., to Fisher Governor Company. Valve construction. 3,540,690, 11-17-70, Cl. 251-28.

Brown, Lloyd H.; and Eftax, Daniel S. P., to Quaker Oats Company, The. Static mold release agent. 3,519,444, 7-7-70, Cl. 106-38.24

Brown, Louise H.; and Swidler, Ronald, to Tallow Research, Incorporated. Epoxy resin composition and process. 3,526,607, 9-1-70, Cl. 260-18.

Brown Machine Company of Michigan, Inc.: *See—*
Adams, Gary A.; Russell, Edward J.; and Schnepp, Bradley A., 3,497,086.
Brown, Gaylord W.; and Rise, Donald J., 3,496,257.
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White, James C., 3,491,633.

Brown, Marinus L.; and Sciulli, Charles M., Jr., to United States Steel Corporation. Tuyere or like blast-furnace appliance. 3,528,392, 9-15-70, Cl. 122-6.6

Brown, Marion L., Jr.: *See—*
Dunwoody, William B.; and Brown, Marion L., Jr.,3,488,686.

Brown, Martin Granger: *See—*
Bloom, Martin S.; and Brown, Martin Granger,3,489,583.

Brown, Martin J., to Western Electric Company, Incorporated. Electron beam masking arrangement. 3,544,790, 12-1-70, Cl. 250-49.5

Brown, Maurice H., to Azonic Products, Inc. Antislippage means for wire tensioning apparatus. 3,520,492, 7-14-70, Cl. 242-155.

Brown, Maurice H., to Azonic Products Inc. Apparatus for forming wire control elements. 3,527,637, 9-8-70, Cl. 156-510.

Brown, Maurice L., to Bausch & Lomb Incorporated. Multiple sampling accessory for spectrophotometer. 3,551,062, 12-29-70, Cl. 356-246.

Brown, Melancthon S., to Chevron Research Company. N-carboxyacyl-N'-hydro-carbylthio ureas. 3,502,705, 3-24-70, Cl. 260-453.

Brown, Melancthon S., to Chevron Research Company. β-Amido vinyl phosphates and their method of preparation. 3,527,848, 9-8-70, Cl. 260-944.

Brown, Melancthon S., to Chevron Research Company. N-carboxyacyl-N'-polychloroalkylthio carbodiimides. 3,531,524, 9-29-70, Cl. 260-558.

Brown, Melvin Henry, to Aluminum Company of America. Distillation of saline water to recover fresh water. 3,528,890, 9-15-70, Cl. 203-4.

Brown, Milton A.: *See—*
Brown, Wayne N.; and Brown, Milton A.,3,550,179.

Brown, Morden G.; and Shatzel, Norman W., to American Optical Corporation. Optical comparison hemoglobinometer with a rotatable light source. 3,533,698, 10-13-70, Cl. 356-40.

Brown, Neil F., to Outboard Marine Corporation. Vibration isolating mount. 3,532,319, 10-6-70, Cl. 248-358.

Brown, Neil F., to Tennant, G. H., Company. Pivotable section for bottom of hopper on sweeping machine. 3,540,070, 11-17-70, Cl. 15-83.

Brown, Neil L., to Bissett-Berman Corporation, The. Salinometer including first and second order temperature compensation and third compensation for variations between conductivity and salinity. 3,491,287, 1-20-70, Cl. 324-30.

Brown, Neil L., to Bissett-Berman Corporation, The. Compensated salinometer. 3,510,761, 5-5-70, Cl. 324-30.

Brown, Neil L., to Bissett-Berman Corporation, The. Vibratory wire pressure transducer. 3,543,585, 12-1-70, Cl. 73-398.

Brown, Neil L., to Bissett-Berman Corporation, The. Measuring apparatus including means for amplitude modulating a conductivity signal with a temperature signal. 3,549,989, 12-22-70, Cl. 324-30.

Brown, Norman F.; and Fredd, John V., to Otis Engineering Corporation. Pumpable impeller pistons for flow conductors. 3,506,068, 4-14-70, Cl. 166-153.

Brown, Norman H., to Dexter Corporation, The. Cable or like enclosure. 3,518,358, 6-30-70, Cl. 174-138.

Brown, Norman J., to United States of America, Atomic Energy Commission. Two-phase fliud control system. 3,525,670, 8-25-70, Cl. 176-86.

Brown, Norman Kenneth, to Sperry Rand Limited. Steering vehicles along a track. 3,492,949, 2-3-70, Cl. 104-244.1

Brown, Norman Robert; Koziara, Mitchell Joseph; and Ribble, Franklin, to General Electric Company. Evaporator support bracket for water coolers. 3,544,049, 12-1-70, Cl. 248-68.

Brown Oil Tools, Inc.: *See—*
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Garrett, Henry U., 3,530,948.

Brown, Omar L., to Fraze, Ermal C., mesne. Easy-opening closure. 3,494,501, 2-10-70, Cl. 220-54.

Brown, Omar L., to Dayton Reliable Tool & Mfg. Company. Dimple and method of forming same. 3,545,249, 12-8-70, Cl. 72-354.

Brown, Omar L., to Fraze, Ermal C., mesne. Easy-opening container closure. 3,545,638, 12-8-70, Cl. 215-46.

Brown, Otto C. Display rack. 3,550,786, 12-29-70, Cl. 211-177.

Brown, Paul L., to Mattel, Inc. Spinable stringless top. 3,523,386, 8-11-70, Cl. 46-50.

Brown, Paul L. Vibratory multi-wave toy. 3,545,126, 12-8-70, Cl. 46-243.

Brown, Paul L. Electric top. 3,550,317, 12-29-70, Cl. 46-243.

Brown, Paul R., to Seal Basin Marine Company. Marine cleat and rope guide. 3,507,243, 4-21-70, Cl. 114-218.

Brown, Peter William; and Farr, Glyn Phillip Reginald, to Girling Limited. Disc brake with multiple operators. 3,507,367, 4-21-70, Cl. 188-106.

Brown, Philip. Manufacture of articles from sheet material. 3,490,077, 1-20-70, Cl. 2-243.

Brown, Philip; and James, Peter Henry. Apparatus for operating tools in accordance with a predetermined programme. 3,502,044, 3-24-70, Cl. 112-79.

Brown, Philip; and James, Peter Henry, to Keystone Limited. Apparatus for producing patterned tufted material. 3,547,058, 12-15-70, Cl. 112-79.

Brown, Pierce B.: *See—*
Hullhorst, William B.; Brown, Pierce B.; and Mosier, William H.,3,499,261.

Brown Products, Inc.: *See—*
Brown, Erik, 3,538,817.

Brown, R. Dexter: *See—*
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Brown, Ralph D., to Westinghouse Electric Corporation. Apparatus for condensing sealing fluid from gland structures. 3,537,265, 11-3-70, Cl. 60-94.

Brown, Ralph D., to Westinghouse Electric Corporation. Vapor turbine power plant. 3,546,881, 12-15-70, Cl. 60-73.

Brown, Ralph D.; and Johnson, Ernest K., to Westinghouse Electric Corporation. Turbine nozzle chamber support arrangement. 3,544,233, 12-1-70, Cl. 415-126.

Brown, Ralph R., to General Motors Corporation. Magnetic fluid actuating pump. 3,511,583, 5-12-70, Cl. 417-412.

Brown, Raymond Dexter; and Gidge, Lester, to Brown, R. Dexter, mesne. Printing and inking apparatus and method with sheet or web feeding means. 3,509,818, 5-5-70, Cl. 101-295.

Brown, Reginald James, to Dowty Rotol Limited. Aircraft arresting device. 3,531,065, 9-29-70, Cl. 244-110.

Brown, Rene Paul; Meek, Paul Derald; and Dyer, Robert Harris, to Cosden Oil & Chemical Company. Casting resin lubrication. 3,505,271, 4-7-70, Cl. 260-33.6

Brown, Rene P.; Allison, Birt, Jr.; and D'Ostrowick, Pierre Marie Joseph Ghislain De Radzitzky, to Cosden Oil & Chemical Company. Separation of diethylbenzene. 3,539,623, 11-10-70, Cl. 260-524.

Brown, Richard Edward: *See—*
Kilmarx, Louis Edward; and Brown, Richard Edward,3,489,167.

Brown, Richard E. Circle-cutting attachment for flame cutters. 3,547,424, 12-15-70, Cl. 266-23.

Brown, Richard E.; and Meltzer, Robert I., to Warner-Lambert Pharmaceutical Company. 1-Oxime substituted quinolizines. 3,518,269, 6-30-70, Cl. 260-286.
Meltzer, Robert I.; and Brown, Richard E.,3,534,046.

Brown, Richard H., to Pivot Punch Corporation. Vise holder. 3,495,795, 2-17-70, Cl. 248-221.

Brown, Richard J. A. Feeders for livestock. 3,550,812, 12-29-70, Cl. 222-70.

Brown, Richard J.: *See—*
Halstead, James R.; and Brown, Richard J.,3,505,998.

Brown, Richard T., Jr.; Hazel, Richard F.; and Laudon, Herbert, to Sperry Rand Corporation. System for measuring extinction coefficients in the atmosphere utilizing backscattered signals. 3,519,354, 7-7-70, Cl. 356-103.

Brown, Richard; and Lacey, David Graham, to Newton, Chambers & Company. Pastes cream and liquid dispensing apparatus which is lockable against tampering. 3,540,630, 11-17-70, Cl. 222-153.

Brown, Robert A.; and Brown, Clifford A., to Rem Metals Corporation. Investment shell molds for the high integrity precision casting of reactive and refractory metals, and methods for their manufacture. 3,537,949, 11-3-70, Cl. 161-225.

Brown, Robert F., Jr., to Teledyne Industries-Geotech Division. Amplifier for enhancing differential input signals. 3,516,005, 6-2-70, Cl. 330-69.

Brown, Robert F., Jr., to Teledyne Industries-Geotech Division. Modulation of an oscillatory circuit for driving a magnetic recording head. 3,530,257, 9-22-70, Cl. 179-100.2

Brown, Robert F.: *See—*
Hall, Herbert J.; Brown, Robert F.; and Robinson, Myron,3,511,030.

Brown, Robert G., to Bunn, B. H., Company. Intermittent drive for tying machine twine arm. 3,540,765, 11-17-70, Cl. 289-15.

Brown, Robert Glenn; Derick, Burton Nathaniel; Stanley, Jon Ovitt; and Watkins, John Mauldin, Jr., to Du Pont de Nemours, E. I., and Company. Electrostatic filter unit with high stable charge and its manufacture. 3,487,610, 1-6-70, Cl. 55-130.

Brown, Robert Glenn; Derick, Burton Nathaniel; Stanley, Jon Ovitt; and Watkins, John Mauldin, Jr., to Du Pont de Nemours, E. I., and Company. Apparatus and method for fabricating a filter unit. 3,550,257, 12-29-70, Cl. 29-592.

Brown, Robert G.: *See—*
Post, Robert E.; and Brown, Robert G.,3,540,275.

Brown, Robert I.; and Reiff, David L., Jr., to Duncan Electric Company, Inc. block interval demand register with Geneva reset. 3,508,150, 4-21-70, Cl. 324-103.

Brown, Robert J. S.; Marlarky, Ian R.; and Blake, Francis G. Method for determining in-line and cross dip employing cross steering of seismic data. 3,529,282, 9-15-70, Cl. 340-15.5

Brown, Robert J.: *See—*
Moran, Kevin E.; and Brown, Robert J.,3,543,342.

Brown, Robert L., Sr. Cascaded solid-state image amplifier panels. 3,548,214, 12-15-70, Cl. 250-213.

Brown, Robert L., to Robin Products Company. Method for fastening trim. 3,504,424, 4-7-70, Cl. 29-430.

Brown, Robert L. Artificial hand for bowling. 3,538,515, 11-10-70, Cl. 312.8

Brown, Robert L.; and Trump, Ronald C., to Honeywell Inc. Servomechanism including paralleled 'lead-lag' channels and means to disable lag channel responsive to excessive rate. 3,510,737, 5-5-70, Cl. 318-18.

Brown, Robert L.; and Wall, Edward W. Portable emergency sign. 3,497,980, 3-3-70, Cl. 40-129.

Brown, Robert M.: *See—*
Wallace, Jacob L., Jr.; and Brown, Robert M.,3,544,983.

Brown, Rogel E.: *See—*
Kushnarov, Harry A.; and Brown, Rogel E.,3,537,752.

Brown, Roland M.: *See—*
Alger, James V.; Brown, Roland M.; and Murphy, William J.,3,496,034.

Brown, Ronald E.: *See—*
Zernow, Louis; and Brown, Ronald E.,3,499,384.

Brown, Ross M.: *See—*
Bray, Donald T.; and Brown, Ross M.,3,493,496.
Bray, Donald T.; and Brown, Ross M.,3,542,199.

Brown, Roy J.: *See—*
Mac Donald, Donald; and Brown, Roy J.,3,528,875.

Brown, S. G., Limited: *See—*
Barnett, Douglas; and Duck, Ivan A., 3,524,355.
Barnett, Douglas; and Myall, Norman John, 3,524,356.
Barnett, Douglas, 3,543,301.
Duck, Ivan Alfred, 3,515,006.
Myall, Norman John, 3,524,357.

Brown, Stanley F.; and MacArthur, Steven J., to Information Storage Systems, Inc. Apparatus for loading and unloading a slider assembly. 3,531,788, 9-29-70, Cl. 340-174.1

Brown, Stanley F.; and Massee, Donald L., to International Business Machines Corporation. Dust cover and knob assembly. 3,524,540, 8-18-70, Cl. 206-62.

Brown, Stanley H.: *See—*
Brumagin, Thomas H.; and Brown, Stanley H.,3,534,910.

Brown, Stephen V.: *See—*
Shaffer, John W.; and Brown, Stephen V.,3,540,819.

Brown, Stewart C., to Digital Data Systems, Inc., mesne. Variable gain amplifier. 3,500,316, 3-10-70, Cl. 330-86.

Brown, Theodore G. Lace holder for shoe. 3,529,367, 9-22-70, Cl. 36-1.

Brown, Thomas A.; and Huber, Joseph B., to Kennametal Inc. Roll for rod mill and mounting arrangement therefor. 3,514,137, 5-26-70, Cl. 287-53.

Brown, Thomas E.: *See—*
Swett, James B.; and Brown, Thomas E.,3,526,335.

Brown, Thomas G., Jr., to International Telephone and Telegraph Corporation. Data exchange compatible with dial switching centers. 3,502,808, 3-24-70, Cl. 178-53.1

Brown, Thomas G., Jr., to International Telephone and Telegraph Corporation. Line switching apparatus. 3,522,587, 8-4-70, Cl. 340-147.

Brown, Thomas J. Ladder leveling device. 3,527,321, 9-8-70, Cl. 182-205.

Brown, Thomas Townsend, to Guidance Technology, Inc., mesne. Fluid flow control system. 3,518,462, 6-30-70, Cl. 310-10.

Brown, Tiffany: *See—*
Newkirk, John D., 3,491,849.

Brown, Victor: *See—*
Anderson, Ingvar; and Brown, Victor,3,524,594.

Brown, Victor, to Metropolitan Waste Conversion Corporation. Process for aerobically preparing fertilizer from a mixture of municipal waste containing paper with sewage sludge. 3,533,775, 10-13-70, Cl. 71-9.

Brown, Walter J. Control system for series wound electric motor using a controlled rectifier and voltage storage means therefor. 3,524,120, 8-11-70, Cl. 318-249.

Brown, Walter P. Hand tool for applying rubber tape. 3,509,000, 4-28-70, Cl. 156-584.

Brown, Walter W.: *See—*
Ward, Martin R.; Brown, Walter W.; and Moore, Robert R.,3,532,090.

Brown, Walter, to North American Rockwell Corporation. Method for connecting pipe between two underwater complexes. 3,524,325, 8-18-70, Cl. 61-72.3

Brown, Walter, to North American Rockwell Corporation. Tool diverter and system for directing TFL tools. 3,545,474, 12-8-70, Cl. 137-610.

Brown, Walter; and Hood, Peter, to North American Rockwell Corporation. Tool diverter for directing TFL tools. 3,545,489, 12-8-70, Cl. 137-610.

Brown, Wayne N.; and Brown, Milton A. Rotary work head for floor cleaning machines and the like. 3,550,179, 12-29-70, Cl. 15-230.

Brown, Willard D., Jr.: *See—*
McCluckie, Donald E.; and Brown, Willard D., Jr.,3,550,533.

Brown, Willard Gene: *See—*
Dines, Allen I.; and Brown, Willard Gene,3,518,345.

Brown, William B., Jr.; and Brinsmead, Kenneth H., to Avnet, Inc. Manufacture of ceramic bodies. 3,525,631, 8-25-70, Cl. 106-57.

Brown, William B., to Western Electric Company, Incorporated. Methods of and apparatus for assembling terminal strips. 3,516,157, 6-23-70, Cl. 29-626.

Brown, William B.: *See—*
Canonico, August R.; and Brown, William B.,3,498,679.

Brown, William E., to Miller, E. J., Trucking Co. Bulkhead for truck trailer or truck bed. 3,493,263, 2-3-70, Cl. 296-28.

Brown, William E.: *See—*
Pruitt, Gail T.; Brown, William E.; and Crawford, Horace R.,3,533,952.

Brown, William F.; Brodeur, Charles H.; and Crockett, William E., to Texaco Inc. Process and apparatus to control VI of solvent refined oil. 3,546,107, 12-8-70, Cl. 208-311.

Brown, William F.; Crockett, William E.; and Brodeur, Charles H., to Texaco Inc. Methods and apparatus for monitoring and control of solvent dewaxing processes. 3,549,514, 12-22-70, Cl. 208-33.

Brown, William Frederick, to United Kingdom of Great Britain and Northern Ireland, Minister of Aviation in Her Britannic Majesty's Government of the. Horn aerials. 3,534,377, 10-13-70, Cl. 343-786.

Brown, William H., Jr., to Kaman Corporation. Restraining device for motor vehicle driver. 3,513,930, 5-26-70, Cl. 180-82.

Brown, William H. Eye test frame support. 3,531,187, 9-29-70, Cl. 351-19.

Brown, William L., to Rosemount Engineering Company Limited. Method of making an electrical resistance element. 3,513,541, 5-26-70, Cl. 29-614.

Brown, William Ray, to Mallory, P. R., & Co., Inc. Variable circuit timer. 3,500,005, 3-10-70, Cl. 200-38.

Brown, William R., to Control Data Corporation, mesne. Pressure operated transducer-controller. 3,498,130, 3-3-70, Cl. 73-301.

Brown, William S., Jr.; and Ballard, Merlin W. Guide track for movable partitions. 3,493,032, 2-3-70, Cl. 160-201.

Brownawell, Darrell W.: *See—*
Jacobson, Norman; Brownawell, Darrell W.; and Kresge, Edward N.,3,551,336.

Brownawell, Darrell W.; Buckley, Donald J.; and Jacobson, Norman, to Esso Research and Engineering Company. Oil concentrate containing a compatible mixture of polyisobutylene and ethylene-alpha olefin copolymer. 3,513,096, 5-19-70, Cl. 252-59.

Brownawell, Darrell W.; and Robbins, Max L., to Esso Research and Engineering Company. Microemulsions of water in hydrocarbon fuel for engines. 3,527,581, 9-8-70, Cl. 44-51.

Browne, Charles M.: *See—*
Grubb, Albany D.; Browne, Charles M.; and Berning, Peter H.,3,537,944.

Browne, James V. Deburring machine. 3,498,179, 3-3-70, Cl. 90-1.4

Browne, John Bertram Neville: *See—*
Prosser, Kenneth Wheatley; Oliver, Raymond; and Browne, John Bertram Neville,3,513,427.

Browne, William R.: *See—*
Coffman, John A.; and Browne, William R.,3,533,932.

Brownell, David F. Trailer. 3,539,065, 11-10-70, Cl. 214-390.

Brownell, John R., to Turbo Machine Company. Apparatus and method for de-registering tow. 3,497,920, 3-3-70, Cl. 19-65.

Brownell, Roy D.; and Woolman, Granville, to Baldwin-Lima-Hamilton Corporation. Bucket tilt control system for level-crowd type loaders. 3,536,216, 10-27-70, Cl. 214-138.

Brownell, Roy D.: *See—*
Kamner, Haim J.; and Brownell, Roy D.,3,529,642.

Browner, Dennis, 'Automatic' Sprinkler Corporation of America. Dual source breathing fluid supply system with alarm. 3,508,542, 4-28-70, Cl. 128-142.2

Browner, Homer G. Carrier for cans and the like. 3,524,534, 8-18-70, Cl. 206-16.

Brownfield, Charles L.: *See—*
Meyer, Elwyn A.; and Brownfield, Charles L.,3,498,178.

Browning, George William; Van Groos, Lambert George Marien Albert; Proctor, Harold; and Openshaw, Ian Kay, to Associated Electrical Industries Limited. X-ray analyzing apparatus having a plurality crystals mounted on a crystal changing carrier. 3,546,453, 12-8-70, Cl. 250-51.5

Browning, Iben. Apparatus for reading information in the form of light reflective areas on a carrier. 3,549,826, 12-22-70, Cl. 179-100.3

Browning, Robert D., to RCA Corporation. Magnetic tape reel. 3,508,719, 4-28-70, Cl. 242-71.8

Browning, William C.; Perricone, Alphonse C.; and Edmundson, Lida Lacy, to Milchen Incorporated. Buffered drilling mud additive. 3,511,779, 5-12-70, Cl. 252-8.5

Brownlow, James M.: *See—*
Alberts, Gene S.; Brownlow, James M.; and Grebe, Kurt R.,3,520,784.

Brownlow, James M., to International Business Machines Corporation. Copper plating bath and a method for depositing thick copper films therefrom. 3,527,681, 9-8-70, Cl. 204-52.

Brownlow, James M.; and Grebe, Kurt R., to International Business Machines Corporation. Thin film memory keeper. 3,508,219, 4-21-70, Cl. 340-174.

Brownrigg, Thomas J. Miter box. 3,545,507, 12-8-70, Cl. 143-86.

Brownson, Ivan F. Ski tow hand grip. 3,537,418, 11-3-70, Cl. 115-6.1

Brownstein, Raymond G. Rotary severing method and apparatus. 3,522,747, 8-4-70, Cl. 82-72.

Brownstein, Raymond G., to Thomas Machine, Inc. Differential drive mechanism. 3,525,273, 8-25-70, Cl. 74-675.

Brownyer, Nelson R., to North American Rockwell Corporation. Tapered spring leaf. 3,534,951, 10-20-70, Cl. 267-47.

Broyard, Yvon; Guetet, Robert; and Nautre, Rene. Electric-arc welding with a protective gas flux. 3,495,066, 2-10-70, Cl. 219-74.

Broyde, Barret, to Esso Research and Engineering Company. Electrochemical cell with tungsten bronze catalyst on anode. 3,502,506, 3-24-70, Cl. 136-86.

Broyde, Barret, to Esso Research and Engineering Company. Process of using fuel cell including tungsten oxide catalyst. 3,507,701, 4-21-70, Cl. 136-86.

Broyde, Barret, to Esso Research and Engineering Company. Fuel cell comprising a metal tungstate anode. 3,544,378, 12-1-70, Cl. 136-86.

Broyles, Harold H.: *See—*
United States of America,National Aeronautics and Space Administration, Administrator, 3,500,677.

Broyles, Howard F.: *See—*
United States of America,National Aeronautics and Space Administration, Administrator, 3,500,677.

Broyles, Leland E.: *See—*
Ptomey, Willie P.; and Broyles, Leland E.,3,535,621.

Broze, Mordechai: *See—*
Frankel, Max; Gertner, David; Broze, Mordechai; Hanna, Pardess; and Zilkha, Albert,3,505,376.

Brozenick, Norman J.; and Guerrero, Fernando V. Apparatus for continuous molding. 3,545,042, 12-8-70, Cl. 18-12.

Brozoska, Henry G. Five-pocket pool table with counters. 3,488,054, 1-6-70, Cl. 273-11.

Brozovich, John C.: *See—*
Davis, Steven S.; Davis, Kent L.; and Brozovich, John C.,3,539,050.

Brozozowski, Wojciech; Dul, Jerzy; and Yerouchalmi, David, to Commissariat a l'Energie Atomique and Institut Badan Jadrowitch. Pebble bed heat exchanger. 3,488,042, 1-6-70, Cl. 263-19.

Bru, Michel Robert, to Ets. J. J. Carnaud & Forges de Basse-Indre. Frames for roller chutes. 3,529,706, 9-22-70, Cl. 193-3.

Brubaker, Charles A.: *See—*
Austin, Lowell W.; and Brubaker, Charles A.,3,531,380.

Brubaker, Enos H.: *See—*
Melloy, George F.; and Brubaker, Enos H.,3,496,326.

Brubaker, Weldon L.: *See—*
Collins, Timothy F.; and Brubaker, Weldon L.,3,538,581.

Brubaker, Wilson M., to Bell & Howell Company. Mass filter with removable auxiliary electrode. 3,501,630, 3-17-70, Cl. 250-41.9

Brubaker, Wilson M., to Bendix Corporation, The. Cold-cathode discharge ion pump. 3,535,054, 10-20-70, Cl. 417-48.

Brubaker, Wilson M.; and Berry, Clifford E., to Bendix Corporation, The, mesne. Cold-cathode discharge ion pump. 3,535,055, 10-20-70, Cl. 417-48.

Brubakken, Gardner G. Rodent trap. 3,530,613, 9-29-70, Cl. 43-85.

Bruce, Charles R., to Marathon Oil Company. Telemeter of mechanical displacement. 3,525,089, 8-18-70, Cl. 340-206.

Bruce Diamond Corporation: *See—*
Puleston, Robert B., 3,534,968.

Bruce, Harry J., to Spector Industries, Inc. Freight vehicles. 3,516,706, 6-23-70, Cl. 296-24.

Bruce Industries, Inc.: *See—*
Fenner, Ernest A., 3,534,405.
Fenner, Ernest A., 3,535,505.

Bruce, James B., to Continental Can Company, Inc. Corrugated board bottle carrier. 3,547,339, 12-15-70, Cl. 229-52.

Bruce, John K., to Sterigard Company. Fluid dispenser. 3,519,172, 7-7-70, Cl. 222-396.

Bruce, John K.; and Bruce, Roger K., to Sterigard Company. Apparatus and method for attaching a flexible bag to a container body. 3,523,492, 8-11-70, Cl. 93-36.01

Bruce, John K.; and Bruce, Thedore R., to Sterigard Company. Pressurized dispenser having a valve extension. 3,549,050, 12-22-70, Cl. 222-95.

Bruce, John K.; and Bruce, Theodore R., to Sterigard Company. Valve for pressurizing a container. 3,496,969, 2-24-70, Cl. 141-20.

Bruce, John K.; and Bruce, Theodore R., to Sterigard Company. Process for fabricating a pressurized container. 3,548,564, 12-22-70, Cl. 53-36.

Bruce, John Mac Millian, Jr.: *See—*
Anderson, Arthur William; Bruce, John Mac Millian, Jr.; Merckling, Nicholas George; and Truett, William Lawrence,3,541,074.

Bruce, John W. Wheelchair. 3,529,688, 9-22-70, Cl. 180-9.24

Bruce, Lester Dudley: *See—*
Cammuso, John Anthony; and Bruce, Lester Dudley,3,551,009.

Bruce, Michael Ian; and Stone, Francis Gordon A., to Alfa Inorganic, Inc. Method for preparing carbonyls of ruthenium and osmium. 3,514,258, 5-26-70, Cl. 23-203.

Bruce, Ralph E. Refrigeration system servicing unit with dispensing pump and connector. 3,538,961, 11-10-70, Cl. 141-61.

Bruce, Robert A.: *See—*
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Bruce, Robert Rosslyn Bent, to Imperial Chemical Industries Limited. Tool. 3,495,330, 2-17-70, Cl. 30-180.

Bruce, Robert V.: *See—*
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Bruce, Roger K.: *See—*
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Bruce, Roger K.; and Waite, Robert S., to Tridair Industries. Article stacker. 3,520,422, 7-14-70, Cl. 214-6.

Bruce, Ronald G.; and Fanning, Robert J., to Continental Oil Company. Process control by a digital computer. 3,548,170, 12-15-70, Cl. 235-151.1

Bruce-Sanders, James Frederick. Electronic taximeter. 3,512,706, 5-19-70, Cl. 235-30.

Bruce, Thedore R.: *See—*
Bruce, John K.; and Bruce, Thedore R.,3,549,050.

Bruce, Theodore R.: *See—*
Bruce, John K.; and Bruce, Theodore R.,3,496,969.
Bruce, John K.; and Bruce, Theodore R.,3,548,564.

Bruce, William F., to American Home Products Corporation. Alpha-aminomethyl benzyl alcohols. 3,517,000, 6-23-70, Cl. 260-247.5

Bruch, Charles A., to General Electric Company. Transparent magnesia-alumina spinel and method. 3,516,839, 6-23-70, Cl. 106-39.

Bruch, Forrest B.; and Hood, William C., to Ethylene Gulf Coast Corporation. Bonding method and article. 3,514,831, 6-2-70, Cl. 29-149.5

Bruch, Walter, to Telefunken Patentverwertungsgesellschaft m.b.H. Means for improving the color rendition in a PAL color television system. 3,534,151, 10-13-70, Cl. 178-5.2

Bruck, George, to Avco Corporation. Ferrite core inductor in which flux produced by permanent magnets is decreased in discrete steps. 3,519,918, 7-7-70, Cl. 323-89.

Bruck, George: *See—*
McNair, Robert J.; Bruck, George; and Hoffman, Sheldon,3,509,500.

Bruck Industries, Inc.: *See—*
Bruck, Marvin Lester, Jr., 3,541,714.

Bruck, Marvin Lester, Jr., to Bruck Industries, Inc. Detachably secured panel assembly for mounting a picture of the like. 3,541,714, 11-24-70, Cl. 40-156.

Bruck, Peter, to Bell & Howell Company. Carbonyl-bisulfite complex stabilization of light sensitive systems. 3,512,977, 5-19-70, Cl. 96-48.

Brucken, Byron L., to General Motors Corporation. Domestic appliance suspension. 3,493,118, 2-3-70, Cl. 210-364.

Brucker, Henry J., to American Aluminum Company. Buckle with strap tightening lever. 3,538,553, 11-10-70, Cl. 24-68.

Brucker, William S., to Black and Decker Manufacturing Company, The. Brush holder construction with dust slots. 3,509,399, 4-28-70, Cl. 310-242.

Bruckner, Eric: *See—*
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Bruckner, Klaus: *See—*
Erb, Rolf; Irmscher, Klaus; Bruckner, Klaus; Kraft, Hans-Gunther; and Kieser, Hartmut,3,510,556.

Bruckner, Klaus; Halpaap, Herbert; and Rossler, Hubert, to Merck, E., A.G. Abrasion-resistant chromatoplates. 3,502,217, 3-24-70, Cl. 210-198.

Bruckner, Kurt, to Brunckner-Trockentechnik KG. Device for treating a continuously moving fabric web in at least three treatment zones. 3,522,719, 8-4-70, Cl. 68-20.

Bruckner-Trockentechnik KG: *See—*
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Bruder, Alfred: *See—*
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Bruder, Michel: *See—*
Granger, Camille; Demeure, Marc; and Bruder, Michel,3,517,557.

Bruder, Samuel M. Disposable medical spectrum. 3,528,409, 9-15-70, Cl. 128-17.

Bruderer, Hans: *See—*
Besendorf, Hedwig; Bruderer, Hans; and Ruegg, Rudolf,3,509,162.

Bruderer, Hans, to Hoffmann-La Roche Inc. p-Chloro-N-(chloropropyl)-α-methyl- phenethylamines and the salts thereof. 3,502,724, 3-24-70, Cl. 260-570.8

Bruderlein, Francois T.; and Campbell, David J., to American Home Products Corporation. N-(heterocyclyl)aconamides. 3,496,187, 2-17-70, Cl. 260-305.

Bruderreck, Hartmut: *See—*
Halasz, Istvan; Bruderreck, Hartmut; and Schneider, Werner,3,513,636.

Brudner, Harvey Jerome, to Westinghouse Learning Corporation, mesne. Answer system for teaching machines. 3,504,447, 4-7-70, Cl. 35-9.

Brueckmann, Helmut, to United States of America, Army. Duplex antenna systems for aircraft transceivers. 3,518,684, 6-30-70, Cl. 343-705.

Brueckner, Hans Dietrich: *See—*
Holle, Werner A.; Kreiling, Rudolf Wilhelm; and Brueckner, Hans Dietrich,3,529,893.

Brueckner, Hans; and Haertel, Kurt; to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Methods and compositions for controlling fungal and bacterial infestation of plants utilizing organic tetravalent tin compounds. 3,499,086, 3-3-70, Cl. 424-286.

Brueckner, Hubert U., to Minnesota Mining and Manufacturing Company. Photographic projection apparatus. 3,499,707, 3-10-70, Cl. 353-90.

Brueder, Antoine, to Societe Anonyme Andre Citroen. Retractable headlamps with mirror. 3,532,870, 10-6-70, Cl. 240-7.1

Bruegel, Werner: *See—*
Suter, Hubert; Nohe, Heinz; Beck, Fritz; Bruegel, Werner; and Aschenbrenner, Heinz,3,542,656.

Bruegge, Juergen, to Bosch, Robert, G.m.b.H. Variable delay windshield wiper system in motor vehicles. 3,549,974, 12-22-70, Cl. 318-443.

Brueggeman, John T. Manually releasable connector. 3,545,049, 12-8-70, Cl. 24-236.

Brueggemann, Harry P., to Tridea Electronics. Anastigmatic wide-field cassegrain system. 3,524,698, 8-18-70, Cl. 350-200.

Brueggemann, Horst; Dachs, Karl; Schwartz, Erich; and Wilhelm, Hans, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Manufacture of expanded polyamides. 3,547,836, 12-15-70, Cl. 260-2.5

Bruel, Alain: *See—*
Bruel, Yvon; and Bruel, Alain,3,525,430.

Bruel, Jean; and Marchand, Guy. Portable audio-visual reproduction apparatus. 3,528,734, 9-15-70, Cl. 353-15.

Bruel, Yvon; and Bruel, Alain. Machine for sizing elongated vegetable products. 3,525,430, 8-25-70, Cl. 209-73.

Bruenjes, Wilhelm H.; Heifetz, Sidney T.; and Kahn, Benjamin. Infusion type coffee urns. 3,517,603, 6-30-700, Cl. 99-283.

Brueske, Vern Alvin. Backhoe as a grader and/or angle trencher. 3,504,451, 4-7-70, Cl. 37-103.

Bruet, Henri Rene, 1/2 to Etablissements A. Cazeneuve. Hydraulic duplicator with feeler. 3,540,330, 11-17-70, Cl. 82-14.

Bruetsch, Harold L., to AMP Incorporated. Wire splicing unit. 3,548,367, 12-15-70, Cl. 339-205.

Brugh, Thomas H.: *See—*
Merkel, Charles M.; Salmon, Joe E.; and Brugh, Thomas H.,3,525,192.

Bruglemans, Lucas, to Automatic Electric Laboratories, Inc. Matrix control selection system. 3,549,815, 12-22-70, Cl. 179-18.

Brugler, Richard L.; and Kiefer, Robert L., to Chrysler Corporation. Coupling apparatus. 3,493,002, 2-3-70, Cl. 137-74.

Brugman, Bram Jan Martha Gerrit, to Stork Amsterdan N.V. Device for holding poultry for slaughtering and/or plucking. 3,537,127, 11-3-70, Cl. 17-11.

Bruha, Peter Joseph, to Westinghouse Electric Corporation. Fluid measurement system and method. 3,546,935, 12-15-70, Cl. 73-194.

Bruhin, Hans. Apparatus for storing wheels of cheeses. 3,545,366, 12-8-70, Cl. 99-243.

Bruhns, Donald: *See—*
Stevens, Donald R.; and Bruhns, Donald,3,536,820.

Bruinsma, Johannes, to N.V. Crimex. Apparatus for treating eggs. 3,541,993, 11-24-70, Cl. 119-1.

Bruist, Edmond H., to Shell Oil Company. Oil recovery from oil shales by transverse combustion. 3,513,913, 5-26-70, Cl. 166-245.

Brule, Albert: *See—*
Frappard, Charles; Roulot, Maurice; and Brule, Albert,3,500,239.

Brumagim, Ivan S., to Feed Processing Systems. Apparatus for treating rumen content. 3,550,524, 12-29-70, Cl. 99-235.

Brumagin, Thomas H.; and Brown, Stanley H., to Ajax-Newark, Inc. Method for treating dross. 3,534,910, 10-20-70, Cl. 241-23.

Brumbaugh, Charles T., to North American Rockwell Corporation. Crossed guide microwave coupler. 3,537,037, 10-27-70, Cl. 333-11.

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Brumlik, George C. Semi-skeletal molecular model assembly. 3,509,642, 5-5-70, Cl. 35-18.

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Brun, Roger, to U.S. Philips Corporation. Generators to form television synchronizing signals. 3,526,716, 9-1-70, Cl. 178-69.5

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Yakubovich, Solomon Lazarevich; Smirnov, Vasily Nikolaevich; Przhiyalgovsky, Stanislav Mikhailovich; Brylyakov, Georgy Ivanovich; and Blinov, Eduard Sergeevich,3,511,989.
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Bryne, Michael D., to Brymill Corporation. Cryosurgical delivery and application of liquified gas coolant. 3,534,739, 10-20-70, Cl. 128-303.1
Bryngdahl, Olof, to International Business Machines Corporation. Shearing interferometry by means of holography. 3,532,431, 10-6-70, Cl. 356-106.
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Brynko, Carl; and Olderman, Gerald M., to National Cash Register Company, The. Replacement of capsule contents by diffusion. 3,516,943, 6-23-70, Cl. 252-316.
Bryon, John P.; and Rolfe, Alan G., to English Abrasives Limited. Coated abrasive containing an over-size layer of a metal halide. 3,541,739, 11-24-70, Cl. 51-295.
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Bryzinski, Thaddeus F., to Stromberg-Carlson Corporation. Method of making a filamentary magnetic memory using rigid printed circuit cards. 3,513,538, 5-26-70, Cl. 29-604.
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Bublitz, Donald E., to Dow Chemical Company, The. Tricyclohexyltin nitrate and azide. 3,527,775, 9-8-70, Cl. 260–349
Bublitz, Donald E., to Dow Chemical Company, The. Perfluorocarboxlic acid ester of tricyclohexyltin hydroxide. 3,542,824, 11-24-70, Cl. 260-429.7
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Buchanan, Harry Charles, Jr., to General Motors Corporation. Face planocentric speed reduction unit and motor. 3,525,890, 8-25-70, Cl. 310-82.
Buchanan, Houston H. Compensating tool bar device. 3,533,475, 10-13-70, Cl. 172-484.
Buchanan, James B., to Du Pont de Nemours, E. I., and Company. Pesticidal composition and method containing alkyl 1- carbamoyl-N-(substituted carbamoyloxy) thioformimidates. 3,530,220, 9-22-70, Cl. 424-320.
Buchanan, John Gordon, to Johnson Wire Works Limited, The. Seam for wire fabric. 3,494,579, 2-10-70, Cl. 245-10.
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Buchanan, Ronald Leslie; and Partyka, Richard A., to Bristol-Myers Company. 1-Phenoxy and substituted phenoxy-(5-tetrazolyl) propanes. 3,498,999, 3-3-70, Cl. 260-308.

Buchanan, Ronald L.; and Partyka, Richard A., to Bristol-Myers Company. Anilinoalkyltetrazoles. 3,517,024, 6-23-70, Cl. 260-308.

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Buchheit, Otto Karl. Live roller feed table with ejecting means. 3,548,997, 12-22-70, Cl. 198-24.

Buchhold, Theodor A., to General Electric Company. Transposed low temperature strip electric cable. 3,514,524, 5-26-70, Cl. 174-34.

Buchhold, Theodor A., to General Electric Company. Flux pump with thermal cryotrons. 3,522,512, 8-4-70, Cl. 321-8.

Buchholz, Arnold R.; Krause, Arnold J.; and Johnson, George V., to Brandt Automatic Cashier Co. Pre-crimped coin wrapper forming apparatus. 3,518,923, 7-7-70, Cl. 93-77.

Buchholz, Bernard; and Hauptschein, Murray, to Pennwalt Corporation. Dimercaptan derivatives as synergists for polyolefin stabilization. 3,538,044, 11-3-70, Cl. 260-45.75

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Buchla, Donald F., 1/2 to General Measurement Research Inc. Optical range measuring apparatus. 3,497,301, 2-24-70, Cl. 356-4.

Buchman, Gerald. Locking device for portable equipment. 3,514,172, 5-26-70, Cl. 312-215.

Buchman, William W., to Union Carbide Corporation. High power factor circuit for reactive loads. 3,541,421, 11-17-70, Cl. 320-1.

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Buchner, Heinrich, to Klockner-Humboldt-Deutz AG. Cross-current blast furnace. 3,544,096, 12-1-70, Cl. 266-30.

Buchner, Norbert; and Domke, Klaus, to Fr. Hesser Maschinenfabrik A.G. Reducing the atmospheric oxygen content of bulk materials which can flow or be trickled. 3,543,970, 12-1-70, Cl. 222-190.

Buchner, Robert Bertold, to U.S. Philips Corporation, mesne. Path selector for use in a switching network. 3,489,854, 1-13-70, Cl. 179-15.

Buchner, Stanislaw, to Solco Basel AG. Method of producing cardioactive glycosides. 3,510,472, 5-5-70, Cl. 260-210.5

Buchroeder, Richard A. Catadioptric optical system for telescopes and the like. 3,529,888, 9-22-70, Cl. 350-184.

Buchsbaum, Frank. Gear hub clamp. 3,501,182, 3-17-70, Cl. 287-52.04

Buchsbaum, Norbert; and Taao, Utah, to Lummus Company, The. Vacuum jet ejector distillation for recovery of toluene diisocyanate. 3,505,176, 4-7-70, Cl. 203-73.

Buchsbaum, Solomon J., to Bell Telephone Laboratories, Incorporated. Self-pulsing laser. 3,539,942, 11-10-70, Cl. 331-94.5

Buchsbaum, Solomon J., to Bell Telephone Laboratories, Incorporated. Amplitude and phase-locking of laser transitions by plasma oscillations. 3,550,031, 12-22-70, Cl. 331-94.5

Buchsbaum, Solomon J.; and Kompfner, Rudolf, to Bell Telephone Laboratories, Incorporated. Time-division multiplex optical transmission system. 3,506,834, 4-14-70, Cl. 250-199.

Buchsbaum, Solomon J.; and Weiner, Daniel, to Bell Telephone Laboratories, Incorporated. Liquid lens optical guide employing neutral particles supported in the liquid. 3,531,185, 9-29-70, Cl. 350-179.

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Buchta, Gerhard, to U.S. Philips Corporation. Waveguide junction circulator having impedance matching wedge at the junction. 3,493,896, 2-3-70, Cl. 333-1.1

Buchtel, Dean H., to Weber Dental Manufacturing Company, The, mesne. Dental chair jack construction. 3,522,925, 8-4-70, Cl. 248-371.

Buchtel, Forrest L., Jr., to Varian Associates. Stream splitter for gas chromatography. 3,498,027, 3-3-70, Cl. 55-197.

Buchwald, Horst; Mulders, Bernward; and Schneider, Rudolf, to Du Pont de Nemours, E. I., and Company. Preparation of dimensionally stable photographic films. 3,547,645, 12-15-70, Cl. 96-87.

Buchwald, Robert M., to General Motors Corporation. Accessory drive. 3,524,359, 8-18-70, Cl. 74-219.

Buchy, Francois; and Bauduin, Philippe, to Anvar Agence Nationale de Valoisation de La Recherche. Method for converting an amplitude modulated electrical signal into a frequency modulated electrical signal. 3,546,632, 12-8-70, Cl. 332-16.

Buck, Francis Fremonte; Querry, Merle Vernon; Barg, William Frederic, Jr.; and Gianonatti, Americo Valentine, to American Cyanamid Company. Preparation of placental albumin. 3,497,492, 2-24-70, Cl. 260-122.

Buck, George J.; and Marantette, Louis E., to General Metalcraft, Incorporated. Elbow forming methods and machines. 3,490,137, 1-20-70, Cl. 29-437.

Buck, Henry M.; and Hoyer, Wilmer A., to Esso Production Research Company. System and method for remote control of a radioactivity logging tool. 3,492,481, 1-27-70, Cl. 250-83.3

Buck, Homer G. Electroerosive apparatus for manufacturing rotary dies. 3,542,993, 11-24-70, Cl. 219-69.

Buck, Immanuel, to Buck, Ruth. Comminuting device. 3,540,505, 11-17-70, Cl. 146-67.

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Buck, Jon R. Underwater electrical quick disconnect. 3,508,188, 4-21-70, Cl. 339-42.

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Buck, Norman R., to Schjeldahl, G. T., Company. Ball and plastic armour plate. 3,523,057, 8-4-70, Cl. 161-116.

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Buck, Richard D. Seal arrangement for carrier rolls. 3,489,468, 1-13-70, Cl. 308-20.

Buck, Robert Arthur, to International Standard Electric Corporation. Amplifier with binary output. 3,506,850, 4-14-70, Cl. 307-239.

Buck, Robert. Latch-type knitting machine needle. 3,550,401, 12-29-70, Cl. 66-121.

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Buck, Walter C.: *See—*
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Buck, Willard E., to Technical Operations, Incorporated. Electric-motor-driven evacuated high speed rotating system for cameras. 3,507,358, 4-21-70, Cl. 184-6.

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Buck, Wolfgang; Sehring, Richard; and Zeile, Karl, to Boehringer, C. H., Sohn. Novel O,O-dialkyl-O(carboxy-alkenyl)-phosphoric acid compounds. 3,506,743, 4-14-70, Cl. 260-942.

Buckbee-Mears Company: *See—*
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Buckingham, John Doble; Chapman, Thomas; Cleaver, John Stuart; and Thorne, Peter Neville, to Edwards High Vacuum International Limited. Ion gauge with collector plates ANF anodes perpendicular to each other. 3,496,399, 2-17-70, Cl. 313-7.

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Buckland, Ivor John; and Walkiden, George William, to International Nickel Company, Inc., The. Production of gas diffusion electrodes. 3,520,733, 7-14-0, Cl. 136-120.

Buckle, Arnold L.J.; and Riley, Clifford, to Vickers Limited. Automatic laboratory. 3,489,521, 1-13-70, Cl. 23-253.

Buckler, Ernest Jack; Edwards, Douglas Cameron; Wunder, Richard Helmut; and Beaton, John, to Polymer Corporation Limited. Terminally active liquid diolefin polymers, preparation and vulcanizates thereof. 3,506,742, 4-14-70, Cl. 260-889.

Buckler, Raymond Robert, to Reyrolle, A., & Company Limited. Punched cards and methods for forming such cards. 3,521,813, 7-28-70, Cl. 234-1.

Buckley, Alan; and Seddon, John David, to Imperial Chemical Industries Limited. Obtaining filaments from polyamide acid salts. 3,529,051, 9-15-70, Cl. 264-184.

Buckley, Arthur H.: *See—*
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Buckley, Fred D.: *See—*
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Buckley, Frederick, to International Business Machines Corporation. Sense amplifier adapted for monolithic fabrication. 3,500,220, 3-10-70, Cl. 330-19.

Buckley, Frederick, to International Business Machines Corporation. Video amplifier particularly adapted for integrated circuit fabrication. 3,509,364, 4-28-70, Cl. 307-203.

Buckley, Frederick, to International Business Machines Corporation. Transistor logic scheme with current logic levels adapted for monolithic fabrication. 3,532,909, 10-6-70, Cl. 307-213.

Buckley, Frederick; and Fitzgerald, Lawrence P., to International Business Machines Corporation. Analog multiplier, divider, variable gain element. 3,500,032, 3-10-70, Cl. 235-195.

Buckley, Herman T., to Emery Industries, Inc. Fiber lubricant. 3,493,504, 2-3-70, Cl. 252-8.8

Buckley, Joseph William, to International Telephone and Telegraph Corporation. Coupling locking device. 3,517,371, 6-23-70, Cl. 339-89.

Buckley, Lawrence G., to Welsh Panel Company. Embossed plywood panel simulating natural wood grin lines. 3,536,574, 10-27-70, Cl. 161-123.

Buckley, Michael J.; and Tilton, Robert L., to PPG Industries, Inc. Low-gloss alkali-silicate coating process for glass. 3,505,051, 4-7-70, Cl. 65-60.

Buckley, Michael J.; Twells, Robert G.; and Timko, Albert J., to PPG Industries, Inc. Simultaneous staining and strengthening of glass. 3,495,963, 2-17-70, Cl. 65-30.

Buckley, Norman A., to McGraw-Edison Company. Pants topper and improved bag and mounting thereof. 3,521,797, 7-28-70, Cl. 223-73.

Buckley, Norman A.; and Rasmussen, Peter D., to McGraw-Edison Company. Spotting board. 3,512,379, 5-19-70, Cl. 68-240.

Buckley, Norman A.; and Rasmussen, Peter D., to McGraw-Edison Company. Garment finisher. 3,512,703, 5-19-70, Cl. 223-70.

Buckley, Norman A.; and Rasmussen, Peter D., to McGraw-Edison Company. Steam gun. 3,524,593, 8-18-70, Cl. 239-583.

Buckley, Norman A.; and Rasmussen, Peter D., to McGraw-Edison Company. Pants topper. 3,525,459, 8-25-70, Cl. 223-73.

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Buckley, Patrick J.: *See—*
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Buckley, Robert Howard, to Robinson, Thomas, & Son Limited. Indexing of rotary members of machines. 3,487,863, 1-6-70, Cl. 143-36.

Buckley, Robert, to Quickfit & Quartz Limited. Sampling and diluting apparatus. 3,525,592, 8-25-70, Cl. 23-253.

Bucklisch, Ludwig; Volpert, Ludger; and Voss, Alfred, to Dynamit Nobel Aktiengesellschaft. Fin-stabilized projectile having an improved annular fin assembly. 3,532,300, 10-6-70, Cl. 244-3.24

Buckman, John D.: *See—*
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Buckman, Kenneth Ernest, to General Motors Corporation. Filters for liquids. 3,487,943, 1-6-70, Cl. 210-457.

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Buckman, Raymond W., Jr., to Westinghouse Electric Corporation. Precipitation hardened tantalum base alloy. 3,498,854, 3-3-70, Cl. 148-32.5

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Bulck, John R.; and Cangelosi, Joseph L., to Certain-Teed Products Corporation. Apparatus for making curved plastic shapes. 3,490,113, 1-20-70, Cl. 25-11.

Bulfer, Andrew F., to United States of America, Navy, mesne. Meter reading system comprising filming of meter dial and subsequent analysis of the film using correlation techniques. 3,521,075, 7-21-70, Cl. 250-219.

Bulgakov, Jury Ivanovich; Velikin, Alexandr Borisovich; Grigoriev, Georgy Osipovich; and Polikarpov, Anatoly Mikhailovich. Device for detecting ore bodies by measuring unstable electromagnetic fields excited by magnetic field pulses. 3,538,430, 11-3-70, Cl. 324-6.

Bulgakov, Jury Vladimirovich: *See—*
Perets, Maxim Izrailevich; Bulgakov, Jury Vladimirovich; Skrastin, Sigurd Yanovich; and Peisakhovich, Jury Ilich,3,502,966.

Bulgin, Douglas, to Dunlop Company Limited, The. Method for controlling the extrusion of visco-elastic material. 3,527,851, 9-8-70, Cl. 264-40.

Bulgrin, Walter William, to Firestone Tire & Rubber Company, The. Method and apparatus for producing vehicle rims. 3,509,755, 5-5-70, Cl. 72-355.

Buligan, Mario. Scraper for loading granular material. 3,538,995, 11-10-70, Cl. 198-103.

Bulk, Robert A.; and Toth, Louis P., to Harris-Intertype Corporation. Proofing control system for a multiple couple printing press. 3,527,164, 9-8-70, Cl. 101-137.

Bulkley, William L.; Ries, Herman E., Jr.; and Will, Robert G., to Standard Oil Company. Method and apparatus for separating oil and the like from a liquid. 3,539,508, 11-10-70, Cl. 210-40.

Bull, Arthur Barclay: *See—*
Besseling, Johann Lodewyk Naude; and Bull, Arthur Barclay,3,518,393.

Bull, Brian S.; Dutcher, Thomas F.; and Siggaard-Andersen, Ole, to United States of America, Health, Education and Welfare. Aliquant discharge device. 3,492,876, 2-3-70, Cl. 73-425.6

Bull General Electric (Nederland) N.V.: *See—*
Muntendam, Rudolf Wilfried, 3,496,788.

Bull, George Rodney. Method of harvesting fruit. 3,543,486, 12-1-70, Cl. 56-1.

Bullard Company, The: *See—*
McCue, Harry R., 3,531,808.
Miko, Steven I.; and McCue, Harry R., 3,498,164.

Bullard, E. D.: *See—*
Brockway, Brock F., 3,504,787.

Bullard, E. D., Company: *See—*
Raschke, Herbert A., 3,492,967.
Raschke, Herbert A., 3,516,092.
Raschke, Herbert A., 3,548,412.

Bullard, Edward P., III; and Bullard, Edward P., IV, to White Consolidated Industries, Inc. Preset tooling. 3,518,769, 7-7-70, Cl. 33-185.

Bullard, Edward P., IV, to Shelter for the World, Inc. Cellular plastic roofing material and method of making the same. 3,492,192, 1-27-70, Cl. 161-57.

Bullard, Edward P., IV: *See—*
Bullard, Edward P., III; and Bullard, Edward P., IV,3,518,769.

Bullard, Hubbard. Grass plow. 3,502,151, 3-24-70, Cl. 172-33.

Bullfinch (Gas Equipment) Limited: *See—*
Lynes, Roberts Kitchener; Willis, John Marden; and Taylor, John William, 3,511,946.

Bullington, John W.; Gustafson, John H.; and Hirshfeld, Julian J., to Monsanto Company. Stretchable woven fabrics. 3,514,249, 5-26-70, Cl. 8-130.1

Bullis, Lloyd Z. Water injector for internal combustion engines. 3,490,422, 1-20-70, Cl. 123-25.

Bullis, Robert H.: *See—*
Penney, Albert W., Jr.; Bullis, Robert H.; and Pinsley, Edward A.,3,514,553.

Bullivant, Kenneth W.: *See—*
Stein, Donald E.; Bullivant, Kenneth W.; and Beckett, Robert H.,3,528,586.

Bullman, Allan R.; and Gilvary, John P., to Union Carbide Corporation. Vinyl chloride resin plastisols. 3,533,978, 10-13-70, Cl. 260-30.6

Bullmerwerk Karl Bullmer: *See—*
Stumpf, Gunter O.; and Eppinger, Hermann, 3,503,605.
Stumpf, Gunter O., 3,506,254.

Bullock, Herschel V.: *See—*
Austin, Richmond O.; Bullock, Herschel V.; and McCraney, Thomas E.,3,533,971.

Bullock, Leslie: *See—*
Porter, Brian; Thompson, Lionel Raymond Frank; and Bullock, Leslie,3,543,029.
Thompson, Lionel Raymond Frank; and Bullock, Leslie,3,546,447.

Bullock, Milon Walker, to American Cyanamid Company. Di 2-(2-[(β-hydroxyphenethyl)amino]-ethyl)-2- thiopseudourea and hydrochloride salt thereof. 3,547,996, 12-15-70, Cl. 260-564.

Bullock, Norman J.; and Dabis, Ted C., to General Motors Corporation. Domestic dryer speed control. 3,509,640, 5-5-70, Cl. 34-133.

Bullock, Robert E., to Croft Metal Products, Inc. Cammed compression locking device for extension ladders. 3,502,175, 3-24-70, Cl. 182-211.

Bullock, Thomas B., to Giddings & Lewis, Inc. Method for driving controlled currents through the stator windings of a position measuring transformer. 3,546,570, 12-8-70, Cl. 323-48.

Bullock, Thomas B.: *See—*
Kolell, Norbert C.; and Bullock, Thomas B.,3,490,017.

Bullough, Vaughn L.: *See—*
McMinn, Curtis J.; and Bullough, Vaughn L.,3,499,831.
McMinn, Curtis J.; Bullough, Vaughn L.; and Williams, Tom Winfield,3,507,643.

Bulman, Peter Joseph, to National Research Development Corporation. Solid state radar. 3,509,567, 4-28-70, Cl. 343-17.1

Bulnes, Evaristo: *See—*
McCarthy, William C.; and Bulnes, Evaristo,3,537,679.

Bulova Watch Company, Inc.: *See—*
Baumgartner, Werner R., 3,546,500.
Bennett, William O.; and Koehler, Dale R., 3,517,288.
Braverman, Murray, 3,519,928.
Dostal, Frank, 3,493,292.
Dostal, Frank, 3,513,415.
Dostal, Frank, 3,532,408.
Mutter, William W.; and Gruner, George P., 3,503,203.

Bulpitt, Thomas H.; and Fladlien, David G., to TRW Inc. High scanning speed spectrometer. 3,547,542, 12-15-70, Cl. 356-83.

Bumb, Frank C., Jr. Tape transport assembly with driven tape roll means. 3,528,625, 9-15-70, Cl. 242-192.

Bumb, Frank C., Jr. Tape transport apparatus with driven tape roll means. 3,528,626, 9-15-70, Cl. 242-192.

Bumgardner, Lillie O.: *See—*
Bumgardner, William H.,3,530,562.

Bumgardner, William H., deceased (by Bumgardner, Lillie O.; legal representative). Connecting tools. 3,530,562, 9-29-70, Cl. 29-203.

Bumiller, Donald R., to Norton Research Corporation, mesne. Masked film recording electroluminescent diode light source having a transparent filled mask aperture. 3,522,389, 7-28-70, Cl. 179-100.3

Bumiller, Maria-Lotte: *See—*
Sippel, Arnulf C. T.; Bumiller, Maria-Lotte; and Vollmer, Paul,3,551,388.

Bumpous, William H. Automatic vehicle signal system. 3,538,496, 11-3-70, Cl. 340-71.

Bumpus, Francis Merlin: *See—*
Smeby, Robert R.; Sen, Subha; and Bumpus, Francis Merlin,3,532,724.

Bunch, John K.: *See—*
Oldham, Dale R.; and Bunch, John K.,3,497,895.

Bunchak, William G., to Westinghouse Air Brake Company. Tracking and braking improvement in 6-wheel shuttle car. 3,501,033, 3-17-70, Cl. 214-83.36

Bundo, Benjamin, Sr. Self-extinguishing receptacle. 3,489,223, 1-13-70, Cl. 169-26.

Bundschuh, John J., to Eastman Kodak Company. Cartridge for roll of web material. 3,542,306, 11-24-70, Cl. 242-71.1

Bundschuh, John J., to Eastman Kodak Company. Take-up threading improvement for automatic strip handling device. 3,544,040, 12-1-70, Cl. 242-206.

Bundschuh, John J., to Eastman Kodak Company. Cartridge and means for locating a cartridge on a projector or the like. 3,547,373, 12-15-70, Cl. 242-197.

Bundschuh, John J.; and Crawford, Philip N., to Eastman Kodak Company. Single-point latch and interlock for a cartridge-loaded motion picture projector. 3,551,038, 12-29-70, Cl. 352-72.

Bundschuh, John J.; Roman, Robert J.; and Thomson, Kenneth W., to Eastman Kodak Company. Cinematographic cartridge project apparatus. 3,550,879, 12-29-70, Cl. 242-192.

Bundschuh, John J.; and Thomson, Kenneth W., to Eastman Kodak Company. Cartridge for reel of strip material. 3,536,276, 10-27-70, Cl. 242-192.

Bundschuh, John J.; and Witkowski, Victor J., to Eastman Kodak Company. Spindle for selectively accommodating reels having different size openings. 3,502,279, 3-24-70, Cl. 242-68.3

Bundus, Robert H. Filled milk product. 3,488,198, 1-6-70, Cl. 99-63.

Bundus, Robert H., to Beatrice Foods Co. Self-preserving banana paste. 3,544,337, 12-1-70, Cl. 99-102.

Bundy, Albert J.; and Williams, James L., to American Saint Gobain Corporation. Unitized packing device. 3,524,543, 8-18-70, Cl. 206-65.

Bundy, Francis P., to General Electric Company. Non-catalytically produced cubic and hexagonal diamond. 3,488,153, 1-6-70, Cl. 23-209.1

Bundy, Robert Wendel; and Sheets, Thomas Melvin, to Du Pont de Nemours, E. I., and Company. Process and apparatus for handling fibrous elements forwarded in fluid streams. 3,510,038, 5-5-70, Cl. 226-7.

Bunel, Jacques: *See—*
Goudin, Robert; and Bunel, Jacques,3,521,500.

Bungard, James D.: *See—*
Becking, Paul E.; Bungard, James D.; and McCormick, Donald J.,3,502,187.

Bungard, James D.; and Costello, Robert E., to Intercontinental Systems, Inc., mesne. Code conversion system. 3,501,747, 3-17-70, Cl. 340-172.5

Bunge, Fred H.: *See—*
Beggs, Donald; Bunge, Fred H.; and Vedensky, Dmitri N.,3,503,735.

Bunger, David A., to Baldwin, D. H., Company. Electronic organ having upbeat percussion gate. 3,493,668, 2-3-70, Cl. 84-1.13

Bunger, David A., to Baldwin, D. H., Company. Stepping rhythmic interpolater. 3,499,091, 3-3-70, Cl. 84-1.03

Bunger, David A., to Baldwin, D. H., Company. Accompaniment chord rhythm system. 3,499,092, 3-3-70, Cl. 84-1.03

Bunger, David A., to Baldwin, D. H., Company. Organ having variable timbre with transistorized player controlled dynamic filter. 3,519,720, 7-7-70, Cl. 84-1.12

Bunger, David A., to Baldwin, D. H., Company. Musical instrument electronic tone processing system. 3,535,969, 10-27-70, Cl. 84-1.11

Bunger, David A., to Baldwin, D. H., Company. Tone processing system. 3,538,806, 11-10-70, Cl. 84-1.12

Bunger, David A., to Baldwin, D. H., Company. Rhythmic accompaniment system employing an asynchronous chain of delay circuits. 3,549,774, 12-22-70, Cl. 84-1.03

Bunger, David A., to Baldwin, D. H., Company. Electronic musical instrument system for sounding voices reiteratively in alternation. 3,549,777, 12-22-70, Cl. 84-1.03

Bunger, David A., to Baldwin, D. H., Company. Plural short sustain percussion gates and common gate arrangement for electronic musical instruments. 3,549,779, 12-22-70, Cl. 84-1.26

Bungeroth, Rolf K.: *See—*
Severin, Jose; and Bungeroth, Rolf K.,3,494,166.

Buning, Robert: *See—*
Bernhardt, Gunther; Buning, Robert; Bierwirth, Egon; and Trautvetter, Werner,3,547,784.
Diessel, Karl-Heinz; Bier, Gerhard; Trautvetter, Werner; and Buning, Robert,3,523,109.
Gross, Hubert; Buning, Robert; and Pungs, Wolfgang,3,509,236.

Buning, Robert; Diessel, Karl-Heinz; and Bier, Gerhard, to Dynamit Nobel Aktiengesellschaft. Process for the polymerization or copolymerization of vinyl chloride. 3,509,109, 4-28-70, Cl. 260-78.5

Buningh, Weigert C., to Shell Oil Company. Method of removing carbonyl sulfide from gases. 3,507,613, 4-21-70, Cl. 23-2.

Bunker Hill Company: *See—*
Jasberg, Peter M., 3,501,795.

Bunker Hill Company, The: *See—*
Jasberg, Peter M., 3,501,385.
Jasberg, Peter M., 3,533,887.
Orlandini, Bruno; and Schmittroth, Walter, 3,494,841.
Orlandini, Bruno; and Schmittroth, Walter, 3,510,414.

Bunker, Robert L. Archery bow draw check clicker. 3,518,959, 7-7-70, Cl. 116-67.

Bunker-Ramo Corporation, The: *See—*
Albee, Thomas K., 3,528,014.
Andrews, Robert L., 3,521,222.
Belcher, Richmond D.; Duggan, Robert J.; Ellis, George R.; Esslinger, Robert H.; Goodyear, William Frederick; Marshall, Joseph C.; and Masone, Thomas R., 3,500,327.
Cameron, John K., 3,512,119.
Church, Charles; Flajole, Henry J.; and Kerber, Harold, 3,515,831.
Cole, Robert H.; Nissim, Samuel; Podraza, George V.; and Feuer, Robert, 3,518,635.
Colgan, James Basil; DiGiugno, Angelo John; and Duggan, Robert James, 3,550,091.
Davis, John S., 3,488,638.
Davis, John S.; and Wells, Paul E., 3,500,352.
Foerster, Roy P., 3,522,445.
Foerster, Roy P., 3,530,314.
Griff, William; and Kitaguchi, Tome, 3,499,219.
Hall, Stanley Rylon, 3,535,556.
Henderson, Martin C., 3,501,669.
Huber, Richard A., 3,517,301.
Hutchinson, Walter F.; Koss, Gerald G.; and Wickstrum, Leland E., 3,540,121.
Kang, George Su, 3,535,550.
Koerner, Ralph J.; and Scarbrough, Alfred D., 3,500,340.
Koerner, Ralph J., 3,516,173.
Koster, Robert A., 3,541,521.
Loughlin, Bruce J.; Rachwal, Ervin J.; and Schiffman, Murray M., 3,509,555.
Lynch, Thomas H.; and Patten, Hudson T., III, 3,522,580.
Mellott, Robert N., 3,506,853.
Michaels, Leonard A.; and Sullivan, Albert Manley, Jr., 3,515,949.
Parks, Howard L.; Kitaguchi, Tome; and Older, Robert B., 3,541,222.
Rosener, Harvey J., 3,506,812.
Scarbrough, Alfred D., 3,500,350.
Scarbrough, Alfred D., 3,512,158.
Scarbrough, Alfred D., 3,541,432.
Schmidt, Uwe J., 3,508,808.
Sear, Brian E., 3,530,411.
Smith, Charles W., 3,516,155.
Wells, Paul E.; Davis, John S.; Lee, Ronald E.; and Boles, David R., 3,540,988.
White, James W. G.; and Freedman, Harry A., 3,547,749.

Bunkhardt, Frederick W.; and Zaimo, Stanley, Jr., to United Aircraft Corporation. Scavenge pump and accessory drive system. 3,520,632, 7-14-70, Cl. 415-122.

Bunn, B. H., Company: *See—*
Brown, Robert G., 3,540,765.

Bunn, Clinton O., to Col-Mont Corporation. Method of and apparatus for treating oil leakage. 3,536,615, 10-27-70, Cl. 210-36.

Bunn, John P., to Lockheed Aircraft Corporation. Body signal sensing electrode apparatus. 3,498,291, 3-3-70, Cl. 128-2.06

Bunn-O-Matic Corporation: *See—*
Martin, John C., 3,494,276.

Bunnell, Fred H. Conduit stress measuring system. 3,495,340, 2-17-70, Cl. 33-174.

Bunnell, Fred H. Conduit coating remover. 3,495,484, 2-17-70, Cl. 81-9.5

Bunnell, Richard L.: *See—*
Handley, Harold E.; Perry, Frank J.; and Bunnell, Richard L.,3,531,010.

Bunnell, Theodore R., to Turbotec, Incorporated, mesne. Method and machine for spirally corrugating tubes. 3,533,267, 10-13-70, Cl. 72-299.

Bunner, James E., to General Electric Company. Dynamoelectric machine. 3,518,466, 6-30-70, Cl. 310-54.

Bunshah, Rointan F.; and Juntz, Robert S., to United States of America, Atomic Energy Commission. Method for mounting thin beryllium windows. 3,531,340, 9-29-70, Cl. 156-8.

Bunten, Charles A.: *See—*
Gass, George H.; and Bunten, Charles A.,3,518,971.

Bunten, Paul H. Air cooling apparatus. 3,540,229, 11-17-70, Cl. 62-240.

Buntin, George A.N-(α-Dimethyl benzyl)α,α-dimethyl alkylamides and use as selective herbicides. 3,498,781, 3-3-70, Cl. 71-118.

Buntin, George A.; and John, Andrew, Jr., to Hercules Incorporated. Process for making 1,1-dimethyl-3- tetrahydrodicyclopentadienyl urea. 3,546,288, 12-8-70, Cl. 260-553.

Buntin, Robert R., to Esso Research and Engineering Company. Solution spinning of polypropylene. 3,507,948, 4-21-70, Cl. 264-203.

Bunting, Albert Lowell. Automatic rotary plastic molding machine. 3,541,645, 11124-70, Cl. 18-20.

Bunting, Earl L. Nurse call system including a coaxial conductor only connecting a plurality of signals. 3,517,120, 6-23-70, Cl. 178-6.8

Bunting, Ernest V., to Massey-Ferguson Inc. Tractor hydraulic control system. 3,489,224, 1-13-70, Cl. 172-9.

Bunting, Ernest V., to Massey-Ferguson Inc. Hitch linkage control system. 3,494,425, 2-10-70, Cl. 172-9.

Bunting, Ernest V.; and Lind, Hans V., to Massey-Ferguson Inc. Universal weight transfer hitch. 3,517,943, 6-30-70, Cl. 280-405.

Bunting, William Wallar, Jr.; Evans, Franklin James; and Hook, David Ellis, to Du Pont de Nemours, E. I., and Company. Nonpatterned, nonwoven fabric. 3,493,462, 2-3-70, Cl. 161-169.

Bunting, William Wallar, Jr.; Evans, Franklin James; and Hook, David Ellis, to Du Pont de Nemours, E. I., and Company. Jet-treatment process for producing nonpatterned and line-entangled nonwoven fabrics. 3,508,308, 4-28-70, Cl. 28-72.2

Buntschuh, Henry C.; and Duvoisin, Jean A., to United Aircraft Corporation. Method of making multiple pole pair resolver. 3,492,721, 2-3-70, Cl. 29-596.

Bunyard, Alan Donald. Rotary actuators. 3,537,358, 11-3-70, Cl. 92-136.

Buon, Georges Andre, to Maurer, J. A., Inc. Camera magazine for high film capacity using free-floating coreless supply roll of film. 3,529,890, 9-22-70, Cl. 352-78.

Buono, Frank S.; and Gandi, Robert A., to Becton, Dickinson and Company. Valved suction catheter. 3,517,669, 6-30-70, Cl. 128-276.

Buonpastore, Ernesto: *See—*
Humbert, Kingsley E., Jr.; and Buonpastore, Ernesto,3,508,383.

Burba, John L., Jr.; and Runyan, Robert S. Method and apparatus for removing debris from cased wells. 3,500,933, 3-17-70, Cl. 166-311.

Burbank, John Emerson, to Scovill Manufacturing Company. Locking type slide fastener. 3,508,304, 4-28-70, Cl. 24-205.13

Burbank, John Emerson, to Scovill Manufacturing Company. Woven zipper stringer and method of making the same. 3,524,479, 8-18-70, Cl. 139-384.

Burbank, John Emerson, to Scovill Manufacturing Company. Shuttleless loom. 3,545,497, 12-8-70, Cl. 139-11.

Burbidge, Bernard Whiting: *See—*
Lawrance, Paul Anthony; and Burbidge, Bernard Whiting,3,527,695.

Burch, Arthur R., to Clark Equipment Company. Means for controlling motor driven vehicles. 3,539,889, 11-10-70, Cl. 318-143.

Burch, Arthur R.; and Bates, Charles E., to Clark Equipment Company. Transfer cart for transferring an article handling vehicle between aisles of a warehouse. 3,503,530, 3-31-70, Cl. 214-16.4

Burch, Arthur R.; and Bates, Charles E., to Clark Equipment Company. Automatic material-unit storage and method. 3,536,209, 10-27-70, Cl. 214-16.4

Burch, Arthur R.; and Snyder, James H., to Clark Equipment Company. Oscillation damper for a stacker vehicle. 3,503,476, 3-31-70, Cl. 188-159.

Burch, Arthur R.; Walton, William B.; Hansen, Howard C.; and Kreutter, Richard W., to Clark Equipment Company. Pulse modulating control arrangement. 3,541,415, 11-17-70, Cl. 318-330.

Burch, Daniel W., Jr., to Wellington Puritan Mills, Inc. Cord dispensing and display package. 3,512,634, 5-19-70, Cl. 206-52.

Burch, Derek E., to Westinghouse Brake and Signal Company Limited. Capacitor commutated circuits wherein charge is dissipated after commutation. 3,548,216, 12-15-70, Cl. 307-252.

Burch, Derek E.: *See—*
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Burch, Homer Albert, to Norwich Pharmacal Company, The. 4(Hydroxyanilino)-2-(5-nitro-2-furyl)quinazolines. 3,542,784, 11-24-70, Cl. 260-256.4

Burch, Jack J., to Texas Instruments, Incorporated. Method and apparatus for automatic alignment of coherent optical spatial frequency filters. 3,539,260, 11-10-70, Cl. 356-71.

Burch, Jack J.; and Skagga, Frank L., to Texas Instruments, Incorporated. On-axis holography. 3,539,242, 11-10-70, Cl. 350-3.5

Burch, James Morriss; and Gates, John William Charles, to National Research Development Corporation. Alignment of adjustable parts of a structure. 3,528,748; 9-15-70, Cl. 356-138.

Burch Parkhurst Associates: *See—*
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Burch, Randolph, to Doig, William S., Inc. Automatic fastening device. 3,539,087, 11-10-70, Cl. 227-3.

Burcham, Thomas L.; Booth, Sterling R.; Miller, Walter B.; and Mc Rae, Donald J., to Caterpillar Tractor Company. Safety device for side dumping mechanism for a loader bucket. 3,523,622, 8-11-70, Cl. 214-768.

Burchard, Leonard E.: *See—*
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Burchard, William K.; Jameson, William P.; and Magee, Edward F., to Singer-General Precision, Inc. Collision avoidance radar trainer. 3,514,521, 5-26-70, Cl. 35-10.4

Burcher, George D.; and Parker, David G., to Molins Machine Company Limited. Gramophone record sleeves. 3,495,765, 2-17-70, Cl. 229-68.

Burchett, Stanley W. Clasp. 3,537,155, 11-3-70, Cl. 24-245.

Burckhardt, Manfred H., to Daimler-Benz Aktiengesellschaft. Sealing sleeve made from elastic material especially for driving joints in motors vehicles. 3,511,061, 5-12-70, Cl. 64-32.

Burckhardt, Manfred H.; and Krohn, Hellmut, to Daimler-Benz Aktiengesellschaft. Installation for preventing skidding during braking of motor vehicles. 3,529,871, 9-22-70, Cl. 303-21.

Burckhardt, Manfred H.; and Lutze, Walter, to Daimler-Benz Aktiengesellschaft. Wheel suspension for steerable motor vehicle wheels, especially motor vehicle front wheels having a negative roll radius. 3,492,018, 1-27-70, Cl. 280-96.2

Burcz, Lawrence D., to Ford Motor Company. Power shift transmission for racing vehicles. 3,541,885, 11-24-70, Cl. 74-720.

Burczyk, Leonhard; Credo, Renate; Faulhaber, Ernst; and Muhlsteph, Willibald, to VEB Fotochemische Werke. Process for preparing auxiliary layers for photographic materials prepared from synthetic polymers. 3,502,501, 3-24-70, Cl. 117-34.

Burd, John W., to Monsanto Company. Method for production of epitaxial films. 3,511,723, 5-12-70, Cl. 148-175.

Burda, Alfred A.; and Brandow, Donn E., to Whittaker Corporation, mesne. Removable rack for cargo containers, 3,506,136, 4-14-70, Cl. 211-177.

Burde, Hans: *See—*
Migule, Albrecht; and Burde, Hans,3,513,090.

Burden, Glenn H. Automated car washing, rinsing and waxing apparatus. 3,537,423, 11-3-70, Cl. 118-2.

Burden, Roy B., Jr.; and O'Gieblyn, Ernest J., to General Incinerators of California, Inc., mesne. Wet waste disposal method, apparatus and components. 3,491,708, 1-27-70, Cl. 110-8.

Burden, Roy B., Jr.; and O'Gieblyn, Ernest J., to Marston, Edgar J., Jr., mesne. Apparatus for shredding material such as bulk paper. 3,524,597, 8-18-70, Cl. 241-142.

Burdeska, Kurt E.; Boshard, Hans; and Pugin, Andre, to Geigy, J. R., A.G. Nitro-acridone dyestuffs. 3,541,099, 11-17-70, Cl. 260-279.

Burdeska, Kurt E.; von der Crone, Jost; Menasse, Raphael; and Pugin, Andre, to Whitten, H. A., & Co., mesne. Substituted benzoquinones and fungicidal method employing same. 3,515,790, 6-2-70, Cl. 424-309.

Burdeska, Kurt E.: *See—*
Pugin, Andre; and Burdeska, Kurt E.,3,523,117.
Pugin, Andre; Burdeska, Kurt E.; and Staub, Alfred,3,532,687.

Burdett, Edward Raymond, to English Electric Company Limited, The. Electromagnetic actuators. 3,503,022, 3-24-70, Cl. 335-256.

Burdett, Edward Raymond, to English Electric Company Limited, The. Electro-magnetic actuator with armature assembly slidable between two limit positions. 3,525,963, 8-25-70, Cl. 335-254.

Burdett, Edward Raymond: *See—*
Robinson, Alfred Alexander; and Burdett, Edward Raymond,3,534,304.

Burdette, Frederick E., to Garrett Corporation, The. Thrust bearing oil seal system. 3,494,679, 2-10-70, Cl. 308-36.1

Burdge, James T., 1/2 to Doron Plastics, Inc. Strip stock feeding system for punch press. 3,512,438, 5-19-70, Cl. 83-209.

Burdick, Clinton D.; and Levine, Seymour, to Sperry Rand Corporation. Apparatus for orienting a gyroscopically stabilized inertial platform. 3,492,735, 2-3-70, Cl. 33-226.

Burdick, Donald L.; Heilman, William J.; and Mantell, Gerald J., to Gulf Research & Development Company. Ammonium hydroxide polymer solutions for floor polish compositions. 3,488,311, 1-6-70, Cl. 260-29.6

Burdick, Donald L.; Heilman, William J.; and Mantell, Gerald J., to Gulf Research & Development Company. Ammonium hydroxide polymer solutions for floor polish compositions. 3,532,656, 10-6-70, Cl. 260-28.5

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Burdin, Clifford; Clarke, James D.; Gehris, James D.; and Whittaker, Johnnie L., to McDonnell Douglas Corporation, mesne. Gyroscopically controlled image stabilization system. 3,518,016, 6-30-70, Cl. 356-248.

Burding, Judy S. Colostomy bag. 3,507,282, 4-21-70, Cl. 128-283.

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Burdorf, Donald L.; Blakistone, James T.; and Karsh, Irving, to Kinelogic Corporation. Drive systems involving electrostatic forces. 3,493,157, 2-3-70, Cl. 226-94.

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Burellier, Georges J.; and Menault, Jacques A., to Rhodiaceta. Apparatus and method for producing a doupion thread. 3,517,498, 6-30-70, Cl. 57-91.

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Bures, Jan, to Ceskoslovenska akademie ved. Apparatus for sorting fertilized and unfertilized eggs. 3,533,504, 10-13-70, Cl. 209-73.

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Bures, Miroslav, to Meopta, narodni podnik. Photographic enlarger with axially adjustable lamp. 3,510,220, 5-5-70, Cl. 355-67.

Burford, Earl E. Burford Company International, Inc. Bread loaf sacking equipment. 3,491,514, 1-27-70, Cl. 53-189.

Burford, Thomas M., to Bell Telephone Laboratories, Incorporated. Attitude sensing system. 3,534,364, 10-13-70, Cl. 343-100.

Burg, John P., to Texas Instruments, Incorporated. Deconvolution seismic filtering. 3,512,127, 5-12-70, Cl. 340-15.5

Burg, Kenneth E., to Texas Instruments, Incorporated. Method and apparatus for recordation of shallow and deep seismic reflection data. 3,539,983, 11-10-70, Cl. 340-15.5

Burg, Kenneth E., to Texas Instruments, Incorporated. Redundancy eliminating radio navigation method and system. 3,540,044, 11-10-70, Cl. 343-6.5

Burgardt, Lothar; Kellner, Hans-Jurgen; and Neumann, Gunther, to Agfa-Gevaert Aktiengesellschaft. Film splicing apparatus. 3,532,284, 10-6-70, Cl. 242-58.1

Burgarella, John P., to Polaroid Corporation. Photometric apparatus having an intermittent signal at a select output state. 3,511,574, 5-12-70, Cl. 356-226.

Burgarella, John P., to Polaroid Corporation. Photometric apparatus incorporating light responsive transistorized switching circuit. 3,545,870, 12-8-70, Cl. 356-226.

Burge, Edward V., to Bosco, Inc. Drill string shock absorber. 3,526,284, 9-1-70, Cl. 175-318.

Burgeni, Alfred A., to Johnson & Johnson. Absorbent pad. 3,494,362, 2-10-70, Cl. 128-290.

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Burger Eisenwerke AG: *See—*
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Burger King Corporation: *See—*
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Burger, Marilyn Judith: *See—*
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Burger, Victor G., to Automatic Electric Laboratories, Inc. Long loop anti-side-tone telephone circuit. 3,517,138, 6-23-70, Cl. 179-81.

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Burgert, Albert, to Compagnie Generale d'Electricite. Variable gain transistor amplifier. 3,543,174, 11-24-70, Cl. 330-29.

Burgert, Herbert A., to Unitechnik AG. Upholstering spring, especially for the back of motor vehicle seats. 3,501,137, 3-17-70, Cl. 267-102.

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Burgess, Charles Russell, to Heinz, H. J., Company Limited. Method of producing shrink wrapped packages. 3,488,913, 1-13-70, Cl. 53-30.

Burgess, Frank H. Quick-setup collapsible box. 3,514,031, 5-26-70, Cl. 229-28.

Burgess, Gordon Stewart, to International Business Machines Corporation. Parity checking system. 3,531,631, 9-29-70, Cl. 235-153.

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Burgess, Joseph Wesley, Jr.; and Segal, Clifford E. Apparatus for playing a game of stock speculation. 3,499,646, 3-10-70, Cl. 273-1.

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Burgess, Murray B., deceased0 (by Burgess, Catherine M.; administratrix). Jet injector. 3,507,276, 4-21-70, Cl. 128-173.

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Burgess, Robert Henry. Loading device. 3,539,061, 11-10-70, Cl. 214-83.3

Burgess, Thomas H., to Fan Tron Corporation. Optical speed transducer. 3,514,685, 5-26-70, Cl. 318-313.

Burgess, Thomas J.; and Clarke, Gordon J., to Lacal Industries Limited. Hinged suspension clamp. 3,547,386, 12-15-70, Cl. 248-63.

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Burgett, Frank A.; and Poradek, Jerry C., to United States of America, National Aeronautics and Space Administration. Process for conditioning tanned sharkskin and articles made therefrom. 3,526,473, 9-1-70, Cl. 8-94.12

Burggraaf, Anthonie Jan. Induction plasma torch. 3,541,625, 11-24-70, Cl. 13-1.

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Burk, George A., to Dow Chemical Company, The. Preparation of 2-bromo-2-cyanoacetamide. 3,488,734, 1-6-70, Cl. 260-465.4
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Burke, George K., to Burron Medical Products, Inc. Hypodermic needle. 3,523,533, 8-11-70, Cl. 128-221.
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Brennan, James H.; and Burtis, Winfield R.,3,501,925.

Burtner, Donald W.: *See—*
Rathbun Alan E.; and Burtner, Donald W.,3,527,499.

Burtness, Myron Earl. Disc-like valve member mounted for rotation relative to connected valve stem. 3,547,400, 12-15-70, Cl. 251-88.

Burton, Arnold F. Seat support. 3,501,197, 3-17-70, Cl. 297-232.

Burton, Bernard L.: *See—*
Gunshinan, Bernard F.; and Burton, Bernard L.,3,523,260.

Burton, Boye H. Fish food distributor for hatchery raceways. 3,526,210, 9-1-70, Cl. 119-51.

Burton Delingpole & Company Limited: *See—*
Lowe, Jack Graham, 3,512,814.
Lowe, Jack Graham, 3,516,695.

Burton, Dennis Ernest; Lambie, Alan James; Newbold, Geoffrey Tattersall; Percival, Albert; and Purdew, Michael Barry, to Fisons Pest Control Limited. 2-Trifluoromethylbenzimidazoles. 3,531,495, 9-29-70, Cl. 260-309.2

Burton Electrochemical Co., Inc.: *See—*
Ginder, Paul, 3,494,760.

Burton, Gilbert W., to Esso Research and Engineering Company. Post oxidation of carboxy-terminated polyisoolefins. 3,514,432, 5-26-70, Cl. 260-85.3

Burton, Harold William; and Long, Nigel, to Lucas, Joseph, (Industries) Limited. Steering wheels for road vehicles incorporating electrical switches. 3,515,825, 6-2-70, Cl. 200-61.57

Burton, Harold William; and Long, Nigel, to Lucas, Joseph, (Industries) Limited. Steering wheels for road vehicles incorporating electrical switches. 3,515,826, 6-2-70, Cl. 200-61.57

Burton, Herbert W. Plucking mechanism for musical instruments of the Harpsichord family. 3,512,444, 5-19-70, Cl. 84-258.

Burton, James R., to McGraw-Edison Company. Outdoor luminaire assembly having photocontrol housing with louvered light admitting means. 3,551,684, 12-29-70, Cl. 250-239.

Burton, Jay E., to Heath Laboratories, Inc., mesne. Measurements systems using conductively-heated pyroelectric element. 3,519,924, 7-7-70, Cl. 324-71.

Burton, Jean A.: *See—*
Brown, Frank M.; Burton, Jean A.; Helgeson, Gerald L.; and Willcox, Jesse A.,3,533,128.
Brown, Frank M.; Burton, Jean A.; Helgeson, Gerald L.; and Willcox, Jesse A.,3,533,129.

Burton, Joe M.: *See—*
Rice, Millard Lee; Burton, Joe M.; and Shaver, Robert G.,3,509,822.

Burton, John Thomas, to Fold-Way Covers Limited. Frame member for collapsible structure. 3,530,623, 9-29-70, Cl. 52-86.

Burton, John W.; and Chung, Asuncion, to Porter, H. K., Company, Inc. Switch construction. 3,488,752, 1-6-70, Cl. 200-48.

Burton, Joseph H. Articulated cultivating implement. 3,487,882, 1-6-70, Cl. 172-310.

Burton, Melven B., Jr.: *See—*
Blumberg, Jerald A.; Burton, Melven B., Jr.; Inskip, Harold K.; and Kemp, Timothy M.,3,513,142.

Burton, Milton, to United States of America, Atomic Energy Commission. Method of cleaning glass and quartz surfaces. 3,501,340, 3-17-70, Cl. 117-124.

Burton, Robert M.; Lake, Donald E.; and Sayers, Eugene H., to General Motors Corporation. High power semiconductor device. 3,512,050, 5-12-70, Cl. 317-234.

Burton, William A.: *See—*
Stark, Kenneth W.; Burton, William A.; and Sherman, Allan,3,545,208.

Burton, William H., to Tinsley Wire Industries Limited. Barbed wire. 3,550,911, 12-29-70, Cl. 256-7.

Burwell, Neil W.; Callaghan, John D.; and Di Meo, Franklin R., to RCA Corporation. Stepper drive device. 3,501,969, 3-24-70, Cl. 74-143.

Burwen, Richard S., to Analog Devices, Inc. Transistor complementary pair power amplifier with active current limiting means. 3,500,218, 3-10-70, Cl. 330-11.

Burwen, Richard S., to Analog Devices, Inc. Operational amplifier providing low input current and enhanced high frequency gain. 3,533,002, 10-6-70, Cl. 330-9.

Bury, David Egerton: *See—*
Cooke, William Ernest; Bury, David Egerton; and Smits, Paul,3,535,222.

Bury, Elmer J., to United States of America, Navy, mesne. Braking device for controlling return of a camera platen. 3,533,341, 10-13-70, Cl. 95-12.5

Burzio, Agostino: *See—*
Daughters, George T., II.; Ingels, Neil B., Jr.; and Burzio, Agostino,3,493,772.

Burzynski, Alfred J., to Owens-Illinois, Inc. Process for preparing organopolysiloxane beads. 3,496,126, 2-17-70, Cl. 260-9.

Busacca, Rosario, to Pharmirex Anstalt, mesne. N-(acetylsalicyl) anthranilic acid compounds. 3,518,297, 6-30-70, Cl. 260-480.

Busby, Edwin S., Jr., to Ampex Corporation. Pictorial video level indicator. 3,525,805, 8-25-70, Cl. 178-7.1

Busby, Joseph B., to Celanese Corporation. Process for electrostatically pinning extruded thermoplastic film. 3,520,959, 7-21-70, Cl. 264-22.

Busch, Arthur W., to Ethyl Corporation. Waste treatment. 3,546,111, 12-8-70, Cl. 210-10.

Busch, Daryle H.; and Jordan, Wade H., Jr., to Du Pont de Nemours, E. I., and Company. Voltaic cells. 3,546,022, 12-8-70, Cl. 136-100.

Busch, Edwin. Multiple unit projection system. 3,535,033, 10-20-70, Cl. 353-94.

Busch, Georg A.; and Wachter, Peter, to Verein zur Forderung der Festkorperphysik an der Eidgenossischen Technischen Hochschule. Process for the control of the luminescent color of a substance, utilizing magnetic chemical compounds. 3,535,519, 10-20-70, Cl. 250-71.

Busch, Richard E., to Addmaster Corporation. Control mechanism for calculating machines. 3,499,603, 3-10-70, Cl. 235-145.

Busch, Richard E., to Addmaster Corporation. Stop pin carriage. 3,515,857, 6-2-70, Cl. 235-60.

Busch, Thomas N., to Youngstown Sheet and Tube Company, The, mesne. Timber harvesting apparatus. 3,547,168, 12-15-70, Cl. 144-3.

Busch, Thomas William; and Kaplan, Arthur Barron. Low electrical resistance varnish coatings on an insulating base. 3,493,369, 2-3-70, Cl. 96-1.8

Busch, Thomas W., to Appleton Coated Paper Company. Method for manufacture of dual coated manifold sheet with pressure rupturable materials. 3,535,140, 10-20-70, Cl. 117-36.2

Busch, William J., Jr., to Standard Pressed Steel Co. Self-locking bolt. 3,542,106, 11-24-70, Cl. 151-14.

Buschbom , Floyd E., to VanDale Corporation. Drive wheel. 3,522,971, 8-4-70, Cl. 301-43.

Buschbom, Floyd E., to VanDale Corporation. Distributor. 3,490,618, 1-20-70, Cl. 214-17.

Buschbom, Floyd E., to VanDale Corporation. Three phase transition assembly. 3,517,369, 6-23-70, Cl. 339-5.

Buschbom, Floyd E., to Van Dale Corporation. Adjustable discharge means. 3,539,059, 11-10-70, Cl. 214-17.

Buschbom, Floyd E., to VanDale Corporation. Multiple lot bunk feeder. 3,543,728, 12-1-70, Cl. 119-52.

Buschbom, Wilbur Lyle: *See—*
McFarland, Walter O.; and Buschbom, Wilbur Lyle,3,506,072.

Buscher, Richard G.; and Miller, Ronald J., to General Electric Company. Redundant off-axis sensors. 3,492,465, 1-27-70, Cl. 235-150.25

Buschfort, Heinz G.: *See—*
Hundere, Alf; and Buschfort, Heinz G.,3,499,310.

Buschman, E. W., Company, Inc., The: *See—*
Todd, William E., 3,504,809.
Vogt, Rudolph B.; and Kamman, Howard L., 3,500,990.

Buschman, Jerome A.: *See—*
Roods, John F.; and Buschman, Jerome A.,3,516,456.

Buschman, Jerome, to McGraw-Edison Company. Belt sander. 3,497,336, 2-24-70, Cl. 51-170.

Buschow, Kurt Heinz Jurgen; and Velge, Wilhelmus Antonius Johannes Josephus, to U.S. Philips Corporation, mesne. Permanent magnet constituted of fine particles of a compound M_8R. 3,523,836, 8-11-70, Cl. 148-31.57

Buschow, Kurt Heinz Jurgen; and Velge, Wilhelmus Antonius Johannes Josephus, to U.S. Philips Corporation, mesne. Permanent magnets built up of M_8 R. 3,546,030, 12-8-70, Cl. 148-31.57

Busdiecker, Robert A.; and Rapp, James E., to Owens-Illinois, Inc. Art of sealing thermally crystallizable glass, and thermally crystallizable telescope mirror blank. 3,507,737, 4-21-70, Cl. 161-4.

Busenbarrick, Eugene G. Multi-purpose portable barbecue. 3,490,433, 1-20-70, Cl. 126-9.

Busenburg, George D.: *See—*
Biggs, Ernest R., Jr.; and Busenburg, George D.,3,504,377.

Buser, Arnold S.; and Braden, William D., to Goodyear Tire & Rubber Company, The. Tire marking apparatus. 3,526,131, 9-1-70, Cl. 73-146.

Buser, Johann, to Bufix-Konsortium Dr. Gottfried Burger, Dr. Heinrich Schutzger. Multi-purpose junction box for conductor wires adapted for installation with a combined cable. 3,551,583, 12-29-70, Cl. 174-41.

Buser, Rudolf G.; Kainz, Johann J.; and Sullivan, John J., to United States of America, Army. Laser generator having shock-induced narrow band illuminator. 3,524,144, 8-11-70, Cl. 331-94.5

Buser, Rudolf; Gaule, Gerhart K.; and Ross, Raymond L., to United States of America, Army. Electrical pulse generators. 3,500,078, 3-10-70, Cl. 310-13.

Bush Boake Allen Limited: *See—*
Johnson, John D.; Gibbs, Egbert M.; and Unwin, Neville, 3,506,685.

Bush, Carroll H.: *See—*
Breed, Carl H.; Bush, Carroll H.; and Getz, John E.,3,510,607.

Bush, Charles F., to Goodyear Tire & Rubber Company, The. Aircraft tire with improved coefficient of friction. 3,494,401, 2-10-70, Cl. 152-209.

Bush, Edward A., to Corhart Refractories Company, mesne. Method of improving the electrical conductivity of sintered tin oxide electrodes. 3,502,597, 3-24-70, Cl. 252-518.

Bush, Elizabeth T.: *See—*
Hansen, David L.; and Bush, Elizabeth T.,3,506,828.

Bush, George W., to Philadelphia Handle Company, Inc. Finger-cushioning plastic luggage handle. 3,500,973, 3-17-70, Cl. 190-57.

Bush, George W., to Philadelphia Handle Company, Inc. Flexible molded plastic handle with cushioning grip containing air pockets. 3,531,822, 10-6-70, Cl. 16-110.

Bush, Harry D., to Collins Radio Company. Electrochemically variable capacitor. 3,531,695, 9-29-70, Cl. 317-231.

Bush, Howard R. Vehicle lamp failure indicator. 3,541,504, 11-17-70, Cl. 340-52.

Bush, James S.: *See—*
Mason, Robert S.; and Stewart, Lela Ruth, 3,525,458.

Bush, John B., Jr.: *See—*
Finkbeiner, Herman L.; and Bush, John B., Jr.,3,535,372.

Bush, Louis, to Flanders Filters Inc. Apparatus for corrugating sheet material. 3,540,079, 11-17-70, Cl. 18-19.

Bush, Robert G.; and Hannon, Gilbert H., to Schreiber, L. D., Cheese Company, Inc. Process of manufacturing individually wrapped slices of extrudable products. 3,542,570, 11-24-70, Cl. 99-178.

Bush, Thomas H.; and Nelson, Richard P., to Armour and Company. Apparatus for linking sausage strands. 3,487,500, 1-6-70, Cl. 17-34.

Bush, Thomas P., Jr.; and Grant, Samuel E. Method and apparatus for chipping logs. 3,545,510, 12-8-70, Cl. 144-323.

Bush, Vannevar. Compound Stirling cycle engines. 3,527,049, 9-8-70, Cl. 60-24.

Bush, Walter M.; Chapman, Derek D.; and Becker, Richard W., to Eastman Kodak Company. Dye developer diffusion transfer system and yellow dye developer therefor. 3,502,469, 3-24-70, Cl. 96-29.

Bush, Walter R., to Stanley Works, The. Garment. 3,504,984, 4-7-70, Cl. 356-256.

Bush, Walter R.; Davis, William R.; and Morganson, Peter H., to Stanley Works, The. Power tool and guide therefor. 3,504,716, 4-7-70, Cl. 143-43.

Bushey, Dale Nelson; and Showman, Robert Linn, to AMP Incorporated. Connector keying device. 3,518,620, 6-30-70, Cl. 339-184.

Bushey, Franklin G., to RCA Corporation. Color display tube whose blue emitter is a silver-activated zinc sulphide containing only one of magnesium, calcium strontium and barium. 3,497,749, 2-24-70, Cl. 313-92.

Bushick, Ronald D., to Sun Oil Company. Combination of Gd alumino-silicate catalyst and hydrogenation catalyst. 3,534,114, 10-13-70, Cl. 260-668.

Bushick, Ronald D., to Sun Oil Company. Combination of Dy alumino-silicate catalyst and hydrogenation catalyst. 3,534,115, 10-13-70, Cl. 260-668.

Bushick, Ronald D., to Sun Oil Company. Catalyst recycle. 3,542,886, 11-24-70, Cl. 260-666.

Bushick, Ronald D., to Sun Oil Company. Synthesis of 1,2,3,4-tetrahydro-5-naphthalene sulfonylfluoride (1) and 1,2,3,4-tetrahydro-6- naphthalene sulfonylfluoride. 3,546,287, 12-8-70, Cl. 260-543.

Bushick, Ronald D.; and Suld, George, to Sun Oil Company. Acid-catalyzed transformation of cyclohexane into dimethyldecalins. 3,509,223, 4-28-70, Cl. 260-666.

Bushman, Basil R.: *See—*
Mc Ewan, James; and Bushman, Basil R.,3,540,338.

Bushman, John Andrew, to Watson, W., & Sons Limited. Fluid flow devices. 3,542,020, 11-24-70, Cl. 128-145.8

Bushman, Julius Harold, to Stanley Works, The. Tool drive transfer apparatus. 3,548,888, 12-22-70, Cl. 140-93.2

Bushman, Ronald C.: *See—*
Alexander, L Bruce; Bushman, Ronald C.; and Holbrook, Franklin K.,3,507,392.

Bushmeyer, Richard W., to Case, J. I., Company. Tripping and cushioning mechanism for earthworking tools. 3,527,307, 9-8-70, Cl. 172-265.

Bushmeyer, Richard W., to Case, J. I., Company. Tensioning means for plow trip. 3,528,504, 9-15-70, Cl. 172-264.

Bushmeyer, Richard W., to Case, J. I., Company. Plow beam extension. 3,533,476, 10-13-70, Cl. 172-773.

Bushmeyer, Richard W.; and Marx, Thomas O., to Case, J. I., Company. Earthworking tool release mechanism. 3,528,505, 9-15-70, Cl. 172-264.

Bushnell, Calvin L., to United Aircraft Corporation. Fuel cell with carbon dioxide gas stripper and method of operation. 3,527,618, 9-8-70, Cl. 136-86.

Bushnell, Collins E., Jr.; Dunn, Lewis R.; Eckert, Lewis W.; and Zigment, Anthony J., to Armstrong Cork Company. Roof deck covering. 3,488,247, 1-6-70, Cl. 161-38.

Bushnell, David P.: *See—*
Akin, Alfred A. Jr.; and Maguire, Paul R., 3,510,192.
Akin, Alfred A., Jr., 3,531,177.

Bushnell, Donald W.; and Pabo, Waldemar, to Eastman Kodak Company. Web casting apparatus. 3,534,438, 10-20-70, Cl. 18-15.

Bushnell, Robert H.: *See—*
Evans, Donald C.; Steiner, Wilford L.; and Bushnell, Robert H.,3,499,156.

Bushnell, Thomas R., to Sperry Rand Corporation. Self-biasing frequency discriminator circuit. 3,533,000, 10-6-70, Cl. 329-119.

Bushnell, Thomas W.: *See—*
Beacham, Francis W.; Bushnell, Thomas W.; and Carson, Joseph R., Jr.,3,519,264.

Bushnell, Thomas W.; Carson, Joseph R., Jr.; and Nill, John J., to Clement, J. W., Company. Signature or sheet collating system. 3,525,516, 8-25-70, Cl. 270-58.

Busignies, Henri G., to International Telephone and Telegraph Corporation. Apparatus for vehicle suspension control. 3,502,347, 3-24-70, Cl. 280-124.

Business Assets Corporation: *See—*
Kallas, William C., 3,515,836.

Business Machines, Inc.: *See—*
Korzeniauskas, Eugene, 3,499,335.

Buske, Duwayne F. Combination protection coupon and label. 3,524,271, 8-18-70, Cl. 40-2.

Buske, Duwayne F. Combination protection label and coupon. 3,524,782, 8-18-70, Cl. 156-248.

Buske, Ervin. Anchor pot. 3,550,343, 12-29-70, Cl. 52-704.

Busler, Willard Le Roy, to AMP Incorporated. Terminal insertion apparatus. 3,545,662, 12-8-70, Cl. 227-95.

Busler, William R., to Phillips Petroleum Company. Block copolymers comprising a lactone and tetrahydrofuran. 3,489,819, 1-13-70, Cl. 260-823.

Busler, William R.: *See—*
Wofford, Clinton F.; Busler, William R.; and Hsieh, Henry L.,3,546,134.

Buslik, Walter S.; and Freeman, Marshall E. Dustproof magnetic discs housing. 3,526,884, 9-1-70, Cl. 340-174.1

Busot, Jesus C.: *See—*
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Buss A.G.: *See—*
Gresch, Walter, 3,518,778.
Ruttener, Erwin Paul, 3,537,712.

Buss, John R., to Monsanto Company. Economic energy recovery from available feed gas line pressure. 3,525,218, 8-25-70, Cl. 60-39.02

Buss, Ralph C., to Lincoln Electric Company, The. High impact cored welding electrode. 3,488,469, 1-6-70, Cl. 219-146.

Bussac, Jean, to Anciens Etablissements Jalla. Method of stiffening loops of a fabric and product. 3,547,750, 12-15-70, Cl. 161-66.

Busschots, Armand August: *See—*
Brepoels, Joseph Rene; and Busschots, Armand August,3,527,594.

Busse, Fritz; and Milles, Hans Peter, to Bremshey & Co. Collapsible and expandable tray assemblies for transporting and serving articles. 3,492,953, 2-3-70, Cl. 108-111.

Busse, Gerd: *See—*
Maurer, Manfred; Rappen, Ludwig; Busse, Gerd; and Orth, Winfried,3,507,879.
Orth, Winfried; Rappen, Ludwig; and Busse, Gerd,3,523,952.
Orth, Winfried; Rappen, Ludwig; and Busse, Gerd,3,544,589.

Busse, Oswald Anton; and Klesper, Erwin Hugo, to Passavant-Werke. Filtering process and system for carrying the process into effect. 3,502,210, 3-24-70, Cl. 210-65.

Busse, Oswald Anton; and Klesper, Hugo Erwin, to Passavant-Werke. Screenings press. 3,520,411, 7-14-70, Cl. 210-73.

Busse, Oswald Anton; and Klesper, Hugo Erwin, to Passavant-Werke. Sewage pump or the like. 3,520,643, 7-14-70, Cl. 417-434.

Busse, Oswald Anton; and Klesper, Hugo, to Passavant Werke. Filter plate with spacing means. 3,543,938, 12-1-70, Cl. 210-229.

Bussgang, Julian J., to Signatron, Inc. Data compaction system with staggered scanning and adaptive redundancy removal. 3,527,885, 9-8-70, Cl. 178-6.8

Bustad, Ronald K., to Farwest Electronics, Inc. Buried panel-illuminating installation. 3,543,014, 11-24-70, Cl. 240-2.

Bustamante, Carlos Roberto P. Contact stems for bulbs, plugs and the like. 3,525,899, 8-25-70, Cl. 313-318.

Bustin, William M., to Esso Research and Engineering Company. Pipeline leak detector. 3,508,433, 4-28-70, Cl. 73-40.5

Buswell, Richard Bobart. Apparatus for producing a moving fluid surface. 3,523,307, 8-11-70, Cl. 4-172.

Buswell, Richard F.; Sederquist, Richard A.; Setzer, Herbert J.; and Snopkowski, Daniel J., to United Aircraft Corporation. Apparatus for generating hydrogen from liquid hydrogen-containing feedstocks. 3,522,019, 7-28-70, Cl. 23-288.

Buszko, Leonard J.; Foster, Luther M.; and Lorenz, Max R., to International Business Machines Corporation. Method of making electroluminescent gallium phosphide diodes. 3,549,401, 12-22-70, Cl. 148-175.

Buta, John R., to Gulf & Western Industrial Products Company, mesne. Rolling mill roll bearing retainer. 3,535,008, 10-20-70, Cl. 308-236.

Buta, John R., to Gulf & Western Industrial Products Company, mesne. Thrust bearing arrangement and apparatus for removing the same. 3,545,245, 12-8-70, Cl. 72-238.

Butane Match Corporation of America: *See*—
Piffath, Rodney S.; and Cole, John J., 3,523,005.
Piffath, Rodney S.; and Cole, John J., 3,523,006.

Butcher, Alvin E., to Phillips Petroleum Company. Matched mold and sizing rod to form parisons. 3,488,804, 1-13-70, Cl. 18-5.

Butcher, Alvin E., to Phillips Petroleum Company. Method and apparatus for multiple direction pinch-off. 3,524,218, 8-18-70, Cl. 18-5.

Butcher, John Anthony Weeks: *See*—
Knight, Ronald George; Butcher, John Anthony Weeks; Pullum, Geoffrey George; and Willson, Michael John,3,517,133.

Butcher, John Anthony Weeks, to International Standard Electric Corporation. Telephone exchanges with dual use of link circuit. 3,529,091, 9-15-70, Cl. 179-18.

Butcosk, Richard A.; and Giammaria, John J., to Mobil Oil Corporation. Greases containing a hydrogenated olefin polymer vehicle, organophilic clay thickener and calcium acetate dispersion. 3,506,573, 4-14-70, Cl. 252-21.

Butcosk, Richard A.: *See*—
Armstrong, Eldon L.; Butcosk, Richard A.; and Murray, George W.,3,514,401.

Butenschon, Claus, to Semikron Gesellschaft fur Gleichrichterbau und Elektronik m.b.H. Semiconductor arrangement. 3,515,955, 6-2-70, Cl. 317-234.

Butera, Joseph P., to Tycodyne Industries Corporation. Modular furniture. 3,512,857, 5-19-70, Cl. 312-107.

Buterbaugh, John N.: *See*—
Toffler, Jerome E.; Winters, Paul N.; and Buterbaugh, John N.,3,506,856.

Buth, William F.; and Wick, Waldemar J., to Wickhen Products, Inc. Astringent alkali metal aluminum complexes of hydroxy acids. 3,542,919, 11-24-70, Cl. 424-68.

Butkett, Wilford B.; and Jackson, Robert V., to McCulloch Corporation. Electrical starter system for gasoline engines. 3,497,706, 2-24-70, Cl. 290-31.

Butkevich, Vladimir Alexandrovich: *See*—
Torban, Alexandr Isaakovich; Kaushansky, Alexandr Stepanovich; Butkevich, Vladimir Alexandrovich; and Grigoriev, Alexey Nikolaevich,3,548,920.

Butkus, Peter J. Game device having a resiliently tethered ball. 3,502,337, 3-24-70, Cl. 273-200.

Butkus, Peter J. Game device having a resiliently tethered ball and multiple tether elements. 3,521,887, 7-28-70, Cl. 273-200.

Butler, Amos R.; and Sutton, Thomas L. Moving cart. 3,547,288, 12-15-70, Cl. 214-372.

Butler, Clarence A.; and Lazzaro, Dominic R., to Lindsay Wire Weaving Company. Non-woven twisted strand filter fabric. 3,510,005, 5-5-70, Cl. 210-400.

Butler, Claude D.: *See*—
Wotring, Robert W.; Nicks, Gene E.; Wentworth, William A.; and Butler, Claude D.,3,509,225.

Butler, David F., to Olin Mathieson Chemical Corporation. Repeating caseless tool. 3,516,246, 6-23-70, Cl. 60-26.11

Butler, David F., to Olin Mathieson Chemical Corporation. Repeating mechanism for impact ignition pellets. 3,540,141, 11-17-70, Cl. 42-17.

Butler, David J. Tubing cutters. 3,545,081, 12-8-70, Cl. 30-123.

Butler, David W.; and Hobart, Edwin L., to Arcoa, Incorporated. Trailer coupling surge brake mechanism. 3,527,324, 9-8-70, Cl. 188-112.

Butler, De Forest D., to Square D Company. Electrical floor outlet housing. 3,542,237, 11-24-70, Cl. 220-3.94

Butler, De Forest D., to Square D Company. Underfloor wiring trench duct. 3,545,150, 12-8-70, Cl. 52-220.

Butler, De Forrest D., to Square D Company. Cover assembly for a junction box of an underfloor electrical wiring system. 3,499,570, 3-10-70, Cl. 220-3.3

Butler, Donald E., to Parke, Davis & Company. 1-[(2,60Dimethylpiperidino)lower alkyl]-3- [(1-phenylcyclobutyl)carbonyl]ureas. 3,489,758, 1-13-70, Cl. 260-294.

Butler, Donald E., to Parke, Davis & Company. (1-Arylcyclobutyl)carbonyl carbamic acid derivatives. 3,526,656, 9-1-70, Cl. 260-471.

Butler, Florence P.: *See*—
Moore, Thomas R., Jr.; and Butler, Florence P.,3,533,923.

Butler, Frank W. Combination hinge and mounting bracket for a sailboat mast. 3,507,240, 4-21-70, Cl. 114-39.

Butler, Gordon Charles, to Xerox Corporation. Tracking roller. 3,518,739, 7-7-70, Cl. 29-123.

Butler, Gordon W.: *See*—
Bardeau, William M.; Schwarzl, Joseph; and Butler, Gordon W.,3,490,358.

Butler, Howard N. Mortising apparatus. 3,491,812, 1-27-70, Cl. 144-78.

Butler Industries, Inc.: *See*—
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Goldstein, Arthur; and Sobel, Theodore, 3,517,623.

Butler, James F., to International Harvester Company. Trailing ploughs. 3,516,500, 6-23-70, Cl. 172-282.

Butler, James G.: *See*—
Ashton, Robert; and Butler, James G.,3,520,121.

Butler, John Henry: *See*—
Kaizerman, Samuel; Chang, Eugene Yue Chieh; and Butler, John Henry,3,503,933.

Butler, John Henry; Chang, Eugene Yue Chieh; and Kaizerman, Samuel, to American Cyanamid Company. Method for preparation of thermoplastic polyurethane ureas. 3,525,717, 8-25-70, Cl. 260-75.

Butler, Keith H.: *See*—
Dale, Ernest A.; Butler, Keith H.; and Thomas, Martha J. B.,3,505,012.

Butler, Kenneth, to Pfizer, Chas., & Co., Inc. Anticoccidial activity of substituted bis- thiosemicarbazones of cyclic 1,2-diketones. 3,497,600, 2-24-70, Cl. 424-323.

Butler, Kenneth; Conover, Lloyd H.; and Woodward, Robert B., to Pfizer, Chas., & Co., Inc.2-[(5'-(3' and] or 4'-Substituted) isoxazoyl) methylidene]-3,4,10-trioxo-1,2,3,4,4a9,9a10- octahydroanthracenes. 3,502,660, 3-24-70, Cl. 260-240.

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Butterfield, James F., to Battelle Development Corporation, The. Production of subjective color by animation techniques. 3,534,152, 10-13-70, Cl. 178-5.2

Butterfield, Ted Lee, to Spraying Systems Co. Filter unit for sprayers. 3,502,221, 3-24-70, Cl. 210-444.

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Butti, Adriano; Prino, Giuseppe; and Bertellini, Gianfranco, to Prephar Prospection de Recherches Pharmaceutiques S.A. Sulfonated derivatives of a glycopeptide extracted from animal organs, useful as drugs and a process for the preparation thereof. 3,518,243, 6-30-70, Cl. 260-112.

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Buzzelli, Edward S., to Standard Oil Company, The (Ohio). Solid electrolyte battery having lithium or lithium alloy anode. 3,506,491, 4-14-70, Cl. 136-6.

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Caccini, Augusto, to Solfrene Macchine S.p.A. Device for filling and sealing pressure containers in particular aerosol-bombs. 3,516,224, 6-23-70, Cl. 53-112.
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Cachon, Rene P.; Miller, Joseph C.; and Scheiner, Leonard S., to International Business Machines Corporation. Micro-motion device. 3,525,140, 8-25-70, Cl. 29-203.
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Caddell, Jack R., to Du Pont de Nemours, E. I., and Company. Method of producing polymeric printing plates. 3,549,733, 12-22-70, Cl. 264-25.
Caddy, Edward William John: *See—*
Fortune, Henry James; and Caddy, Edward William John,3,489,418.
Cade, Phillip J., to Electronics Corporation of America. Combustion control circuit. 3,504,993, 4-7-70, Cl. 431-26.
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Cahn, Robert P.; Johnston, Robert H.; and Plumstead, James A., Jr., to Esso Research and Engineering Company. Transportation of natural gas as a hydrate. 3,514,274, 5-26-70, Cl. 48-190.

Cahoy, Roger P., to Gulf Research & Development Company. Combating weeds with O-acyl-3,5 dialkyl-4- hydroxybenzaldoximes. 3,503,732, 3-31-70, Cl. 71-121.

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Caillette, Georges Edmond; and Vidal, Jean Amable, to Sud-Aviation, Societe Nationale de Constructions Aeronautiques. One-man aircraft with jet-powered lift and propulsion. 3,506,221, 4-14-70, Cl. 244-23.

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Cain, James P.; and Cross, John H., to Deering Milliken Research Corporation. Molded articles of wearing apparel. 3,542,616, 11-24-70, Cl. 156-224.

Cain, Ronald L.; and Jones, Kenneth G. Weather-insulating sheath for TV cable connectors. 3,502,790, 3-24-70, Cl. 174-138.

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Cairatti, Anthony E., to Schafroth, Werner. Stapling machine and method of forming staples. 3,504,837, 4-7-70, Cl. 227-83.

Cairatti, Anthony E., to Schafroth, Werner. Bottom stapler. 3,504,838, 4-7-70, Cl. 227-89.

Cairatti, Anthony E., to Schafroth, Werner. Stapling machine. 3,504,839, 4-7-70, Cl. 227-108.

Caird, Peter. Air injection-providing hose nozzle. 3,533,559, 10-13-70, Cl. 239-419.5

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Cairns, Roger John Russell; and Dodson, Stanley Charles, to British Petroleum Company Limited, The. Oleophilic graphite. 3,518,192, 6-30-70, Cl. 252-29.

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Calano, Giuseppe, to Olivetti, Ing. C., & C., S.p.A. Feed and guide arrangement for continuous perforated forms for office machines. 3,549,068, 12-22-70, Cl. 226-79.

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Caldemeyer, Lloyd O.; and Caldemeyer, Daniel F. Reclining chair structure. 3,494,660, 2-10-70, Cl. 297-68.

Calder, Glen H. Extrusion device. 3,530,552, 9-29-70, Cl. 25-32.

Calder, Robert A.C., to International Harvester Company. Harvester platform for windrowers. 3,509,699, 5-5-70, Cl. 56-23.

Calder, Robert L., to General Plastics Company Limited. Fish packing system. 3,518,842, 7-7-70, Cl. 62-372.

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Calderon, Nissim; and Chen, Hung Yu, to Goodyear Tire & Rubber Company, The. Olefin conversion process. 3,535,401, 10-20-70, Cl. 260-683.

Calderon, Nissim; and Judy, William Allen, to Goodyear Tire & Rubber Company, The. Catalyst composition comprising an organoaluminum compound, a tungsten hexahalide and a compound of the formula ROH. 3,492,245, 1-27-70, Cl. 252-429.

Calderon, Sergio; and Sorli, Gordon B., to Sylvania Electric Products, Inc. Parity-checking apparatus for coded-vehicle identification systems. 3,525,073, 8-18-70, Cl. 340-146.1

Calderwood, Gene C.; and Poller, Dennis, to Esso Research and Engineering Company. Polyolefin laminates. 3,539,439, 11-10-70, Cl. 161-165.

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Caldwell, Bruce J., Sr.; and Kriegel, Carl P. Multiple valve mechanism for testing instruments. 3,526,136, 9-1-70, Cl. 73-388.

Caldwell, Dale R., to Argus Incorporated. Pistol grip movie camera. 3,520,241, 7-14-70, Cl. 95-86.

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Caldwell, Donald A., to Esso Research and Engineering Company. Tester for free water in hydrocarbons. 3,500,046, 3-10-70, Cl. 250-71.

Caldwell, Donald A., to Esso Research and Engineering Company. Method and composition for detecting free water. 3,505,020, 4-7-70, Cl. 23-230.

Caldwell, Donald B., to Minnesota Mining and Manufacturing Company. Damped ski and method of making. 3,537,717, 11-3-70, Cl. 280-11.13

Caldwell, E. L., & Sons, Inc.: *See*—
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Caldwell, Edward N., to Robertshaw Controls Company. Apparatus for measuring a preumatic signal in a control system. 3,531,994, 10-6-70, Cl. 73-388.

Caldwell, French. Thermionic energy converter. 3,515,908, 6-2-70, Cl. 310-4.

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Caldwell, Henry C.; and Groves, William G., to Smith Kline & French Laboratories. Heterocyclic amino esters of 2-phenylacrylic acid. 3,497,501, 2-24-70, Cl. 260-240.

Caldwell, Henry C.; and Groves, William G., to Smith Kline & French Laboratories. Azoxybis [2-phenylacrylic acid, 3-tropanyl esters]. 3,503,952, 3-31-70, Cl. 260-143.

Caldwell, Henry C.; and Groves, William G., to Smith Kline & French Laboratories. 3-Thiotropanyl esters of certain subetituted-2- aminophenylacrylate compounds. 3,511,832, 5-12-70, Cl. 260-240.

Caldwell, Henry C.; and Groves, William G., to Smith Kline & French Laboratories. Azobis[2-phenylacrylic acid, 3-tropanyl esters]. 3,542,757, 11-24-70, Cl. 260-152.

Caldwell, John P.; and Fisher, Thomas F., to Xerox Corporation. Electrostatic sheet detaching apparatus. 3,506,259, 4-14-70, Cl. 271-51.

Caldwell, John R., Jr.: *See*—
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Caldwell, John Richard, to Eastman Kodak Company. Branched polyesters containing terminal carboxyl groups. 3,502,620, 3-24-70, Cl. 260-75.
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Caldwell, John R.; and Cassano, James R., to Xerox Corporation. Sorting apparatus for documents. 3,497,207, 2-24-70, Cl. 271-64.

Caldwell, John R.; and Gilkey, Russell, to Eastman Kodak Company. Modified polyester compositions containing polyamides prepared from aromatic diamines. 3,522,328, 7-28-70, Cl. 260-857.

Caldwell, John R.; and Gilkey, Russell, to Eastman Kodak Company. Preparation of linear poly(ester-amides). 3,546,178, 12-8-70, Cl. 260-75.

Caldwell, John R.; and Jackson, Winston J., Jr., to Eastman Kodak Company. Polyesters containing chlorinated gemdimethyl groups. 3,514,422, 5-26-70, Cl. 260-30.4

Caldwell, John R; and Jackson, Winston J., Jr., to Eastman Kodak Company. Three-dimensional polycyclic bisphenol polycarbonates and polyesters. 3,517,071, 6-23-70, Cl. 260-619.

Caldwell, John R.; and Jackson, Winston J., Jr., to Eastman Kodak Company. Formation of urethane units on the surface of polycarbonate structures. 3,518,040, 6-30-70, Cl. 8-115.5

Caldwell, John R.; and Jones, Glenn C., to Eastman Kodak Company. Polyesters containing disulfonamide compounds having improved dyeing properties. 3,546,180, 12-8-70, Cl. 260-76.

Caldwell, Linda J.; and Goldwasse, Seymore, to Lever Brothers Company. Process for making fast hydrating tripolyphosphates and detergents containing said phosphates. 3,520,817, 7-21-70, Cl. 252-109.

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Caldwell, Robert H. Cable reel sling. 3,549,190, 12-22-70, Cl. 294-81.

Caldwell, Robert J.; and Sullo, Kenneth J., to Mason, L. E., Co. Folding-telescoping support. 3,547,054, 12-15-70, Cl. 108-115.

Caldwell, Sherwood M.: *See*—
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Cale, Roland E., to Schaefer Equipment Company. Railroad car sliding sill guide. 3,492,950, 2-3-70, Cl. 105-420.

Caleb, Abram Godwin. Extrusion apparatus for fabricating building units. 3,548,452, 12-22-70, Cl. 18-5.

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Cales, Henri, to Societe Francaise de Construction de Bennes Automatiques Benoto. Drilling machine. 3,495,667, 2-17-70, Cl. 175-161.

Calfee, Wendell, to Westinghouse Electric Corporation. Frequency sensing circuit. 3,512,013, 5-12-70, Cl. 307-233.

Calgaro, Louis A.; Fayling, Clarence D.; and Ray, Phillip M., to Rockwell Manufacturing Company. Coin collection mechanism and theft detection system provided thereby. 3,494,454, 2-10-70, Cl. 194-1.

Calgon Corporation: *See*—
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Boothe, Jerry E.; and Hoover, Merwin Frederick, 3,544,318.
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Calhoun, Charles W., to Tenneco Oil Company, mesne. Measuring apparatus for drilling rigs. 3,522,727, 8-4-70, Cl. 73-151.5

Calhoun, Clinton W., Jr.; Hart, Frank B., Jr.; and Eberhard, Lloyd C., Jr., to Reynolds Metals Company. Method and apparatus for making aluminum and paper laminates. 3,542,621, 11-24-70, Cl. 156-324.

Calhoun, Frederick L., to Automatic Sprinkler Corporation of America, mesne. Container inspection apparatus with nutating instantaneous field of observation. 3,529,167, 9-15-70, Cl. 250-223.

Calhoun, Fredrick L., to Automatic Sprinkler Corporation of America. Container inspection device with transverse dual scan utilizing rotating reticle and plurality of concentric photocells. 3,500,053, 3-10-70, Cl. 250-223.

Calhoun, J. Thomas. Multiple drill press. 3,545,309, 12-8-70, Cl. 77-21.

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Califano, Frank L.; and Shutak, Paul N., to Flintkote Company, The. Automatic stacking and taping machine. 3,546,045, 12-8-70, Cl. 156-486.

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Calkin, Edwin T.; and Ianniello, Joseph W., to Bell Telephone Laboratories, Incorporated. Current limit detector. 3,534,353, 10-13-70, Cl. 340-248.
Calkins, Donald L., to Johnson Corporation, The. Small bore roll syphon. 3,498,591, 3-3-70, Cl. 263-6.
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Calkins, Thornton R., to General Electric Company. Pigmented polycarbonate stabilized with phosphites and ion epoxidized carboxylate. 3,498,946, 3-3-70, Cl. 260-37.
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Callahan, Francis J., Jr.; and Wennerstrom, Erling G., to Cajon Company. Tube coupling. 3,521,910, 7-28-70, Cl. 285-14.
Callahan, George J. Safety wallet for waist belt. 3,542,263, 11-24-70, Cl. 224-26.
Callahan, Irwin J. Two-way plow roll-over mechanism. 3,517,749, 6-30-70, Cl. 172-225.
Callahan, James J.; Urso, Ralph F.; and Snow, John P., to McCord Corporation. Flow responsive valve for lubricating systems. 3,500,958, 3-17-70, Cl. 184-6.
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Callahan, James Louis; Gertisser, Berthold; and Szabo, Joseph J. Process for the manufacture of unsaturated aldehydes from olefins. 3,519,688, 7-7-70, Cl. 260-604.
Callahan, James P.; and Stark, Richard A., to Mallory, P. R., & Company, Inc. Apparatus for producing ceramic chip electrical components. 3,538,571, 11-10-70, Cl. 29-25.41
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Callahan, Thomas T.; Worters, Allen J.; and Zambuto, Domenic A., to Sylvania Electric Products, Inc. Digital vector generator. 3,510,865, 5-5-70, Cl. 340-324.
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Callanan, Joseph R., to Cal-Tav, Inc. Jig for electrical outlet box mounting. 3,537,699, 11-3-70, Cl. 269-98.
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Callister, John David; and Carlile, Clayton George, to American Cyanamid Company. Nitration of phenol using recycle acid. 3,517,075, 6-23-70, Cl. 260-622.
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Calnan, Edward A., to Gillette Company, The. Cutting instruments. 3,490,314, 1-20-70, Cl. 76-104.
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Calvert, Rodney K.; and Fishback, Alton J., to Mead Corporation, The. Article handling and treating apparatus. 3,495,810, 2-17-70, Cl. 263-8.
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Calvert, William L., to Union Carbide Corporation. Electrical power system. 3,497,026, 2-24-70, Cl. 180-65.
Calvert, William L.; and Bowen, James H., to Union Carbide Corporation. Adjustable draw stroke machine. 3,494,526, 2-10-70, Cl. 226-32.
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Camboulives, Andre Alphonse Mederic Leon; and Delonge, Jean-Claude Lucien, to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation. Variable area nozzles. 3,537,647, 11-3-70, Cl. 239-265.39
Cambre, Cushman Merlin, to Procter & Gamble Company, The. Abrasive liquid detergent compositions. 3,520,818, 7-21-70, Cl. 252-113.
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Camenzind, Hans R., to Mallory, P. R., & Co., Inc. Decoupling means for integrated circuit. 3,518,458, 6-30-70, Cl. 307-297.
Camenzind, Hans R., to Mallory, P. R., & Co. Inc. Pulse-width modulation circuit. 3,531,740, 9-29-70, Cl. 332-14.
Camenzind, Hans R., to Mallory, P. R., & Co., Inc. Two-state amplifier. 3,548,329, 12-15-70, Cl. 330-10.
Camerino, Bruno; and Palamidessi, Giorgio, to Societa Farmaceutici Italia. Pyrazine derivatives. 3,501,464, 3-17-70, Cl. 260-239.7
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Cameron, Andrew Hepburn, to Union Carbide Canada Limited. Production of skinless sausage. 3,500,743, 3-17-70, Cl. 99-353.
Cameron, Andrew Hepburn, to Union Carbide Canada Limited. Release agents for cellulose castings. 3,533,808, 10-13-70, Cl. 99-176.
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Cameron, Daniel F.; and Turner, Malcolm M., to Continental Oil Company. Apparatus for manufacturing dialkyl aluminum hydride compounds. 3,497,325, 2-24-70, Cl. 23-283.
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Cameron, Douglas R. G., to Pylon Electronic Development Company, Ltd. DC to DC converter. 3,522,510, 8-4-70, Cl. 321-2.
Cameron, Eric C. Closed, controlled system for carbonizing organic refuse. 3,525,673, 8-25-70, Cl. 201-1.
Cameron, Frank L., to Westinghouse Electric Corporation. Fuse including improved means responsive to the operation of the fuse. 3,519,971, 7-7-70, Cl. 337-241.
Cameron, Frank L.; and Walker, Clayton T., to Westinghouse Electric Corporation. Fuse having improved means for reducing the force applied to a fusible means. 3,508,184, 4-21-70, Cl. 337-150.
Cameron, Grant McLay, to Ciba Limited. Polymeric adducts of monoepisulfides and primary amines. 3,509,112, 4-28-70, Cl. 260-79.
Cameron, Hugh Elliot. Audio-visual apparatus. 3,492,905, 2-3-70, Cl. 84-464.
Cameron, Ian D. K., to Uniroyal Limited. Liquid conveying hose with float. 3,489,182, 1-13-70, Cl. 138-103.
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Cameron, James H.; and Tygard, Charles M., to Spectrol Electronics Corporation. Dual components adjustable separately, or in unison, by a front shaft. 3,498,147, 3-3-70, Cl. 74-10.45
Cameron, John K., to Bunker-Ramo Corporation, The. Electrical connector. 3,512,119, 5-12-70, Cl. 339-90.
Cameron, Leon E.; Harris, William B.; Massey, Richard P.; and Zgebura, Frank J., to Bell Telephone Laboratories, Incorporated. Thyristor switch circuit. 3,488,522, 1-6-70, Cl. 307-252.
Cameron, Leon E.; and Massey, Richard P., to Bell Telephone Laboratories, Incorporated. Thyristor switch. 3,529,181, 9-15-70, Cl. 307-265.
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Cameron, Scott H., to IIT Research Institute. Graphical translator. 3,492,421, 1-27-70, Cl. 178-18.
Cameron, Scott H., to IIT Research Institute. Multistation graphical terminal system. 3,516,067, 6-2-70, Cl. 340-172.5
Camezind, Hans R. Class A audio amplifier. 3,519,946, 7-7-70, Cl. 330-24.

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Camhi, Jack C.; Hackney, Donald E.; and Lewis, Thomas Glenn, Jr., to Du Pont de Nemours, E. I., and Company. Process for casting films of uniform thickness. 3,523,987, 8-11-70, Cl. 264-39.

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Camilleri, Louis T.; and Huebner, Manfred H., to Hooker Chemical Corporation. Polyesterurethane adhesives. 3,538,055, 11-3-70, Cl. 260-75.

Caminker, Bernard; Andrews, La Vern A.; Lavin, John H.; and Robberson, Ronald F., to Hughes Aircraft Company. Combination inflatable and hard shelters. 3,497,606, 2-24-70, Cl. 174-35.

Camirand, Wayne M.; and Popper, Karel, to United States of America, Agriculture. Uni-flow filter and method. 3,523,077, 8-4-70, Cl. 210-65.

Camirand, Wayne M.: *See—*
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Camire, Norman H., to International Telephone and Telegraph Corporation. Removable electrical connector filter assembly. 3,539,954, 11-10-70, Cl. 333-79.

Cammarata, Italo; and Vecchio, Martino, to Montecatini Edison S.p.A. Process for the production of iodopentafluoroethane. 3,523,140, 8-4-70, Cl. 260-653.6

Cammarata, Italo: *See—*
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Cammuso, John Anthony; and Bruce, Lester Dudley, to Riley Stoker Corporation. Expansion joint assembly. 3,551,009, 12-29-70, Cl. 285-226.

Camnitz, Harold G., to Bausch & Lomb Incorporated, mesne. Circuit including a constant amplitude pulse generator for adjusting the amplitude of pulses produced by a transducer. 3,497,805, 2-24-70, Cl. 324-140.

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Camp, Frederick W., to Great Canadian Oil Sands Limited. Utilizing ion exchange to reduce fresh water requirement of hot water process. 3,496,093, 2-17-70, Cl. 208-11.

Camp, Frederick W., to Great Canadian Oil Sands Limited. Method of mining bituminous tar sands. 3,510,168, 5-5-70, Cl. 299-5.

Camp, Frederick W., to Great Canadian Oil Sands Limited. Removing suspended solids from a liquid. 3,526,585, 9-1-70, Cl. 208-11.

Camp, Harold E.; and Evans, James W., to Corning Glass Works. Razor blade configuration. 3,514,856, 6-2-70, Cl. 30-346.53

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Camp, William C.: *See—*
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Campagnuolo, Carl J., to United States of America, Army. Fluid modulator system. 3,528,442, 9-15-70, Cl. 137-81.5

Campagnuolo, Carl J., to United States of America, Army. Electrical power source. 3,539,840, 11-10-70, Cl. 310-2.

Campagnuolo, Carl J.; and Rutstein, Shea O., to United States of America, Army. Fluidic oscillatory system insensitive to pressure and temperature. 3,504,691, 4-7-70, Cl. 137-81.5

Campanaro, Peter L.; Sleven, Marvin O.; and Webb, William E., to Whittaker Corporation. Means and techniques useful in blanking interference. 3,514,707, 5-26-70, Cl. 328-165.

Campanella, Matthew J.; Christensen, James L.; and Hughes, Charles J., to United States of America, Army, mesne. High speed analog-to-digital encoder. 3,537,101, 10-27-70, Cl. 340-347.

Campanella, Samuel Joseph, to United States of America, Army, mesne. S-filter. 3,524,081, 8-11-70, Cl. 307-317.

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Campano, Frank J.; Hiatt, Gregg C.; and McGovern, William, to International Business Machines Corporation. Storage addressing. 3,516,070, 6-2-70, Cl. 340-172.5

Campano, Frank J.; and Spencer, William J., to International Business Machines Corporation. Increment-decrement register for modifying a binary number. 3,505,511, 4-7-70, Cl. 235-175.

Campas, Marvin, to Armour Research Foundation of Illinois, and Institute of Technology. Electromagnetic transducer head with plural magnetic circuits, gaps and wingings. 3,526,725, 9-1-70, Cl. 179-100.2

Campbell, Albert B., to Royal Products Company. Lather producing machine. 3,502,247, 3-24-70, Cl. 222-190.

Campbell, Alfred L. Jack for laying flooring. 3,524,623, 8-18-70, Cl. 254-15.

Campbell, Alistair John, to Cambridge Instrument Company Limited. Electron probe microanalyzer having a plurality of X-ray spectrometer positioned to minimize X-ray defocussing during specimen scanning. 3,514,599, 5-26-70, Cl. 250-49.5

Campbell, Alistair John, to Cambridge Instrument Company Limited. Blazed diffraction grating X-ray spectrometer. 3,518,426, 6-30-70, Cl. 250-51.5

Campbell, Alton D., to Lockheed Aircraft Corporation. Gas-shielded arc-riveting tool. 3,526,746, 9-1-70, Cl. 219-127.

Campbell, Andrew J., to University of California, The Regents of the. Microtome knife sharpener. 3,546,819, 12-15-70, Cl. 51-73.

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Campbell, Axel. Power integrated gyroscopic device. 3,533,187, 10-13-70, Cl. 46-243.

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Campbell, David Neil, to Hymatic Engineering Company Limited, The. Employing the Joule-Thomas effect cooling apparatus. 3,517,525, 6-30-70, Cl. 62-222.

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Cannell, John Corjeag; and Parratt, Noel James, to United Kingdom of Great Britain and Northern Ireland, Minister of Technology in Her Britannic Majesty's Government of the. Fibre reinforced composites. 3,541,659, 11-24-70, Cl. 29-182.5
Cannella, Joseph L., to Berg Mfg. & Sales Co. Electrical trailer brake system. 3,507,542, 4-21-70, Cl. 303-7.
Cannella, Joseph L., to Berg Mfg. & Sales Co. Trailer brake release system. 3,507,543, 4-21-70, Cl. 303-7.
Cannella, Joseph L., to Berg Mfg. & Sales Co. Trailer brake release. 3,512,843, 5-19-70, Cl. 303-7.
Cannelongo, Joseph Frederick: *See—*
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Cannelongo, Joseph Frederick, to American Cyanamid Company. Flame-retardant compositions for plastics comprising ethylene phosphite and a chlorinated hydrocarbon. 3,513,119, 5-19-70, Cl. 260-28.5
Canner, Irving: *See—*
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Canney, Robert S., to General Electric Company. External indentification plate for instrument transformer. 3,543,423, 12-1-70, Cl. 40-22.
Canno, Leonard E., to Equitable Bag Co., Inc. Shopping bags. 3,549,084, 12-22-70, Cl. 229-54.
Canno, Leonard E.; and Krissel, Robert A., to Equitable Bag Co., Inc. Handle and closure for flexible box. 3,549,083, 12-22-70, Cl. 229-52.
Cannon, Charles R. Aerojet-General Corporation Reverse osmosis membrane and method of manufacture. 3,497,072, 2-24-70, Cl. 210-500.
Cannon, Cyril G.; Davies, Barrie L.; Selwood, Alan; and Williams, Roy A., to British Nylon Spinners Limited. Process and apparatus for making a yarn of axially extending interconnected loops. 3,535,867, 10-27-70, Cl. 57-34.
Cannon, Cyril G.; Selwood, Alan; Davies, Barrie L.; and Williams, Roy A., to British Nylon Spinners Limited. Yarns of polymeric material. 3,487,627, 1-6-70, Cl. 57-140.
Cannon, Cyril G.; Selwood, Alan; Davies, Barrie L.; and Williams, Roy A., to British Nylon Spinners Limited. Process and apparatus for making yarns of polymeric material. 3,492,803, 2-3-70, Cl. 57-59.
Cannon, Cyril G.; Selwood, Alan; Davies, Barrie L.; and Williams, Roy A., to British Nylon Spinners Limited. Bulky yarn. 3,538,701, 11-10-70, Cl. 57-140.
Cannon, Henry. Building corner construction. 3,543,463, 12-1-70, Cl. 52-282.
Cannon, Howard S.; Catalano, Phillip F.; Glomb, John D.; and O'Neill, Roger M., to Continental Can Company, Inc. Device for improving efficiency of radio-frequency welding. 3,511,957, 5-12-70, Cl. 219-8.5
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Cannon, James W. Sawhorse or trestle. 3,502,174, 3-24-70, Cl. 182-155.
Cannon, John B., Jr., to HRB-Singer, Inc. Optical scanning system. 3,510,191, 5-5-70, Cl. 350-7.
Cannon, John B., Jr., to HRB-Singer, Inc. Optical scanning system with multiple channel output. 3,549,805, 12-22-70, Cl. 178-7.1
Cannon, John G.: *See—*
Morrill, Stephen A.; Price, Donald J.; Morris, Robert B.; and Cannon, John G.,3,532,878.
Cannon, John W., to General Electric Company. Dual inductance induction heater. 3,508,024, 4-21-70, Cl. 219-10.61
Cannon, Maxwell R.; Olden, Rodney; and Takahashi, Kuniomi, to International Business Machines Corporation. Magnetic tape tester utilizing a detector head D.C. biased to oppose the test magnetization on the tape. 3,535,622, 10-20-70, Cl. 324-34.
Cannon, Robert W. Incubator egg tray. 3,489,124, 1-13-70, Cl. 119-43.
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Fehr, Isaac N.; Cannon, Sidney E.; Sutherland, Dan; Goodman, William D.; Ashcraft, Robert M.; and Shelby, Frank S.,3,490,354.
Fehr, Isaac N.; Cannon, Sidney E.; Sutherland, Dan; Goodman, William D.; Ashcraft, Robert M.; and Shelby, Frank S.,3,508,378.
Cannon, William N., to Lilly, Eli, and Company. Novel oxiodinium and thiaiodinium compounds. 3,506,719, 4-14-70, Cl. 260-612.
Canon Camera Kabushiki Kaisha: *See—*
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Kimura, Takehiko; and Niizawa, Yoshiaki, 3,548,179.
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Koyanagi, Shuji, 3,524,695.
Ogiso, Mitsutoshi, 3,526,179.
Canon, Raymond; and Bouvier, Marcel, to L'Aluminum Francais, and Duralumin et du Cuivre. Method for fabricating radiators. 3,512,238, 5-19-70, Cl. 29-157.3
Canonica, Luigi; Crotti, Argento; and Merlo, Fabrizio, to Aziende Colori Nazionali Affini, ACNA S.p.A. Monoazo heterocyclic containing triazine dyestuffs. 3,527,746, 9-8-70, Cl. 260-153.
Canonica, Luigi; Crotti, Argento; and Pieri, Giampiero, to Aziende Colori Nazionali Affini ACNA S.p.A. Reactive mono- and disazo dyestuffs suitable for dyeing modified polypropylene. 3,502,646, 3-24-70, Cl. 260-186.
Canonico, August R.; and Brown, William B., to Dry Ballast, Inc., mesne. Apparatus for and method of removing dry ballast from a pneumatic tire. 3,498,679, 3-3-70, Cl. 302-56.
Canonico, Domenic A.; Bryson, Lloyd G.; and Slaughter, Gerald M., to United States of America, Atomic Energy Commission. Refractory and ceramic brazing alloys. 3,515,545, 6-2-70, Cl. 75-134.
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Canrad Precision Industries, Inc.: *See—*
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Cant, John Sydney, to Marconi Company Limited, The. Pneumatically operated punched tape reading device. 3,530,282, 9-22-70, Cl. 235-61.11
Cantalupo, Francis J., to Crane Co. Declutching mechanism. 3,515,250, 6-2-70, Cl. 192-48.91
Cantarutti, Armindo, to NRM Corporation, mesne. Apparatus for applying strip tread on tire building drum. 3,523,854, 8-11-70, Cl. 156-397.
Cantatore, Giuseppe: *See—*
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Cantatore, Giuseppe, to Montecatini Edison S.p.A. Basic nitrogen polycondensates of disecondary di- amines or p-menthanediamine. 3,536,635, 10-27-70, Cl. 260-2.

Cantatore, Giuseppe; and Bonvicini, Alberto, to Montecatini Edison S.p.A. Process for preparing 1,4-diaza-cycloheptenes. 3,502,653, 3-24r70, Cl. 260-239.

Cantella, Richard C.: *See—*
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Canton Textile Mills, Inc.: *See—*
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Cantor, Abraham; and Winicov, Murray W., to West Laboratories, Inc. Germicidal nonionic detergent-iodine compositions. 3,513,098, 5-19-70, Cl. 252-106.

Cantor, Abraham; and Winicov, Murray W., to West Laboratories, Inc. Compositions comprising quaternary ammonium germicides and nonionic surfactants. 3,539,520, 11-10-70, Cl. 252-106.

Cantor, Abraham: *See—*
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Cantor, Clarence; and Volpe, Frank A., to United States of America, National Aeronautics and Space Administration. Attitude control system. 3,490,719, 1-20-70, Cl. 244-1.

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Cantrel, Kenneth E.: *See—*
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Goodhue, Lyle D.; Cantrel, Kenneth E.; and Reinert, Andrew J.,3,546,340.
Reinert, Andrew J.; Cantrel, Kenneth E.; and Cobb, Raymond L.,3,524,003.

Cantrell, Dan R. Apparatus and method for cutting a radius toothed gear. 3,492,916, 2-3-70, Cl. 90-5.

Cantrell, Dan R. Apparatus and method for cutting gears. 3,503,301, 3-31-70, Cl. 90-5.

Cantrell, Robert R.; and Wiley, Forrest P., to Grace, W. R., & Co. Recovery of S0. 3,538,681, 11-10-70, Cl. 55-48.

Cantrill, Donald E., to Home Comfort Products Co. Adjustable vacuum platen. 3,498,663, 3-3-70, Cl. 294-65.

Cantrill, Donald E., to Home Comfort Products Co., mesne. Fixture for machine processing a laminated product. 3,531,360, 9-29-70, Cl. 156-580.

Cantrill, James E., to General Electric Company. Graft copolymer of aliphatic polycarbonate on polymeric backbone having pendant hydroxy, carboxy or amine groups. 3,506,739, 4-14-70, Cl. 260-873.

Cantrill, Keith Ian: *See—*
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Jones, Peter David; and Cantrill, Keith Ian,3,490,591.

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Cantwell, Hugh Francis, to Rolls-Royce Limited. Valve control apparatus. 3,505,817, 4-14-70, Cl. 60-226.

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Canzoneri, Richard M.; Cheney, Robert L.; and Otto, Ernest H., to Bell & Howell Company, mesne. High impedance galvanometer with amplifier input. 3,509,459, 4-28-70, Cl. 324-97.

Cap, Miroslav; Cizinsky, Zdenek; Dohnalek, Rudolf; Chvojka, Jiri; and Karkoska, Vitezslav. Apparatus for the separation of salts from solutions. 3,515,521, 6-2-70, Cl. 23-273.

Cap, Steven T., to Sperry Rand Corporation. Interferometric shaft angle encoder having natural binary readout. 3,493,959, 2-3-70, Cl. 340-347.

Capadalis, Custer E. Material handling means. 3,499,659, 3-10-70, Cl. 280-47.2

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Capaldi, Eugene C.; Leum, Leonard N.; and Shalit, Harold, to Atlantic Richfield Company. Method for the production of adamantane. 3,489,817, 1-13-70, Cl. 260-666.

Caparone, Michael J., to Robertshaw Controls Company. Thermostatically controlled burner valve with high and low feed rates. 3,489,350, 1-13-70, Cl. 236-68.

Caparone, Michael J.; and Chambers, William W., to Robertshaw Controls Company. Temperature control system with recycling high limit. 3,523,643, 8-11-70, Cl. 236-9.

Caparone, Michael J.; and Dykzeul, Theodore J., to Robertshaw Controls Company. Pressure regulator construction. 3,508,708, 4-28-70, Cl. 236-33.

Caparone, Michael J.; and Dykzeul, Theodore J., to Robertshaw Controls Company. Method for making a pressure regulator. 3,510,936, 5-12-70, Cl. 29-454.

Caparone, Michael J.; Dykzeul, Theodore J.; Scharer, Edward B.; and Braucksiek, Henry C., to Robertshaw Controls Company. Controller and mixer of plural fluids and method. 3,536,097, 10-27-70, Cl. 137-599.

Cape, Arthur T., to Coast Metals, Inc. Manufacture of brazing alloys in strip form or the like. 3,490,116, 1-20-70, Cl. 29-529.

Cape, Arthur T., to Coast Metals, Inc. Ductile cobalt strip. 3,501,277, 3-17-70, Cl. 29-182.

Cape, Arthur T., to Coast Metals, Inc. Composite brazing compositions of a composite metal having various layers containing nickel. 3,549,339, 12-22-70, Cl. 29-194.

Cape Engineering Company Limited: *See—*
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Cape Fear Feed Products, Inc.: *See—*
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Capek, Raymond G.; and Mazintas, John P. Method of making multilayer ceramic capacitors. 3,549,415, 12-22-70, Cl. 117-215.

Capellari, Elio, to Enrico Boselli S.p.A. Remote-controlled display device for selectively displaying signs or words. 3,501,761, 3-17-70, Cl. 340-324.

Capen, George A., to Magnavox Company, The. Active filter circuit. 3,550,026, 12-22-70, Cl. 330-21.

Caperton, Charles B. Manhole brace for sewer rod guide tube. 3,497,899, 3-3-70, Cl. 15-104.3

Caperton, Troy A. Machines for making board roads. 3,521,769, 7-28-70, Cl. 214-83.36

Capes, Charles Edward; and McIlhinney, Allan Edward, to Canadian Patents and Development Limited. Method of preparing agglomerates of reduced efflorescence. 3,493,642, 2-3-70, Cl. 264-117.

Capewell Manufacturing Company, The: *See—*
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Capgras, Rene, to Industrial Development Company Establishment, mesne. Hydropneumatic suspension. 3,516,683, 6-23-70, Cl. 280-124.

Capgras, Rene, to Industrial Development Company Establishments. Hydropneumatic suspension. 3,536,311, 10-27-70, Cl. 267-64.

Capik, Robert J.; and Wright, Leon W., to Atlas Chemical Industries, Inc. Nickel phosphate promoted supported nickel catalyst. 3,538,019, 11-3-70, Cl. 252-437.

Capita, Emil R. Sailboat mast coupling. 3,540,401, 11-17-70, Cl. 114-90.

Capitaine, Wolfgang; and Bard, Martin, to Swiss Aluminium Ltd. Operation of furnace for the electrolytic fusion recovery of aluminum. 3,551,308, 12-29-70, Cl. 204-67.

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Capitol Machine and Switch Company, The: *See—*
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Capitol Records, Inc.: *See—*
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Caplan, Knowlton J., to Hart-Carter Company. Method and apparatus for filtering a gaseous medium. 3,487,609, 1-6-70, Cl. 55-96.

Caplan, Max: *See—*
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Caples, Allen S.; and Breckenridge, Davis T., to Catalyst Research Corporation. Joining articles of thermoplastic resins. 3,542,402, 11-24-70, Cl. 285-21.

Capolupo, Richard: *See—*
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Capowski, Julius; and Andress, Harry J., Jr., to Mobil Oil Corporation. Quaternary amine salts useful as fuel stabilizers. 3,506,712, 4-14-70, Cl. 260-567.6

Cappa, Carlo. Interrelated clutch-engine-transmission-brake controls for vehicles. 3,536,176, 10-27-70, Cl. 192-0.044

Cappa, Giulio: *See—*
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Cappelen, Christian, Jr., to A/S Nycotron. Dialysis water system. 3,528,550, 9-15-70, Cl. 210-180.

Cappella, Michael. Retractable cover for outdoor areas. 3,534,511, 10-20-70, Cl. 52-63.

Cappelle, Norman D.; and Cummings, John G., to Oak Electro/Netics Corporation. Detent spring. 3,489,029, 1-13-70, Cl. 74-527.

Cappelletti, Carlo: *See—*
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Cappello, Ignazio, to Pioneer Coveralls, Inc. Dump truck body cover. 3,549,198, 12-22-70, Cl. 296-100.

Cappello, Triest J., to CF Electronics Incorporated. Solid state starter and controller for electric motor. 3,522,505, 8-4-70, Cl. 318-431.

Cappotto, Samuel D., to SCM Corporation. Typewriter ribbon spool cover. 3,499,517, 3-10-70, Cl. 197-186.

Cappa, David B., to Parke, Davis & Company. Novel 5-nitro-4-thiazolin-2-ylidene compounds. 3,523,122, 8-4-70, Cl. 260-306.7

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Cappucci, Joseph D., to Merrimac Research and Development, Inc. Wideband hybrid ring network. 3,504,304, 3-31-70, Cl. 333-11.

Cappucci, Joseph D., to Merrimac Research and Developments Inc. Networks using cascaded quadrature couplers, each coupler having a different center operating frequency. 3,514,722, 5-26-70, Cl. 333-10.

Cappuccio, Vittorio; Caldo, Cornelio; and Cantatore, Giuseppe, to Montecatini Edison S.p.A. Fiber-forming compositions having improved dye receptivity. 3,527,846, 9-8-70, Cl. 260-897.

Cappuccio, Vittorio; and Riboni, Ubaldo, to Montecatini Edison S.p.A. Diglycidyl glycol treatment of polyacrylonitrile or polyvinyl chloride with polyalkyleneimine dispersed therein. 3,512,919, 5-19-70, Cl. 8-100.

Capra, Uberto, to Ceccato & C. S.p.A. Vehicle washing apparatus. 3,500,487, 3-17-70, Cl. 15-21.

Caprara, Gaetano, to OMAC S.N.C. Film driving apparatus. 3,490,667, 1-20-70, Cl. 226-25.

Caprara, Giuseppe: *See—*
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Caprari, Fausto, to RCA Corporation. Apparatus for regulating the light output of a flash lamp. 3,525,016, 8-18-70, Cl. 315-241.

Caraballo, Julian E. Photographic enlarging easel. 3,512,887, 5-19-70, Cl. 355-72.

Carabasse, Andre. Rotary fishing tackles. 3,488,877, 1-13-70, Cl. 43-42.09

Carabasse, Andre. Fishing rod. 3,513,582, 5-26-70, Cl. 43-18.

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Carabet, George F.; and Segesman, Louis E., to Hoover Company, The. Squeegee nozzle for wet pickup suction cleaner. 3,520,012, 7-14-70, Cl. 15-402.

Carabet, George F.: *See—*
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Caracciolo, Vincent P., to Du Pont de Nemours, E. I., and Company. Permeation separation device for separating fluids. 3,528,553, 9-15-70, Cl. 210-321.

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Carassa, Francesco, to Automatic Electric Laboratories, Inc. FM system with pilot signal to measure group delay. 3,492,579, 1-27-70, Cl. 325-47.

Carassa, Francesco; and Rocca, Fabio, to Consiglio Nazionale Delle Ricerche, Piazzale Delle Scienze, mesne. Method and device for recognizing and compensating phase steps in angle demodulators. 3,546,608, 12-8-70, Cl. 329-131.

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Caravatti, Mario, to Sulzer Brothers Limited. Forced through-flow steam generator. 3,530,836, 9-29-70, Cl. 122-406.

Carbary, Leonard A., to Chrysler Corporation. Dual intensity turn signal indicators. 3,548,251, 12-15-70, Cl. 315-77.

Carbaugh, Robert A.: *See—*
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Carbone, Anthony. Hair grooming device. 3,491,774, 1-27-70, Cl. 132-9.

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Carbone, Frank A., to Air Reduction Company, Incorporated. Welding nozzle locking mechanism. 3,488,468, 1-6-70, Cl. 219-136.

Carbone, John T.; Gerkensmeier, Otto F.; and Parker, George, to Bell Telephone Laboratories, Incorporated. Data set for polar current loop signaling. 3,505,475, 4-7-70, Cl. 179-4.

Carbonel, Michel, to CSF-Compagnie Generale de Telegraphie Sans Fil. Method of wiring integrated magnetic circuits. 3,520,782, 7-14-70, Cl. 204-16.

Carbonell, Emile; and Solente, Pierre, to L'Air Liquide, Societe Anonyme pour l'etude et l'Exploitation des Procedes Georges Claude. Method of maintaining electrical apparatus at very low temperatures. 3,524,327, 8-18-70, Cl. 62-52.

Carboni, Rudolph Anthony, to Du Pont de Nemours, E. I., and Company. 2-(o-Nitrosophenyl)-2,1,3-benzotriazole. 3,517,025, 6-23-70, Cl. 260-308.

Carbonneau, Rene R., to Ray Plastic Inc. Disc projecting toy pistol. 3,515,114, 6-2-70, Cl. 124-27.

Carbonneau, Rene R., to Ray Plastic Inc. Toy spring type repeating pistol. 3,525,323, 8-25-70, Cl. 124-27.

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Durr, Larry L., 3,503,878.
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Carbrey, Robert L., to Bell Telephone Laboratories, Incorporated. Circuit for selectively applying a voltage to an impedance. 3,543,264, 11-24-70, Cl. 340-347.

Carburetion Units Limited: *See—*
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Carcano, Donato: *See—*
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Carcel, Joseph T.; and Rodemann, Alfred H., to United States of America, Navy. Light weight stabilized support for a holographic system. 3,526,444, 9-1-70, Cl. 350-3.5

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Card, Roy T., to Card, Lewis, & Co., Inc. Yarn guide for a tufting needle. 3,500,776, 3-17-70, Cl. 112-79.

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Cardani, Charles P.; and Peterson, Raymond L., to USM Corporation. Methods of securing two parts together. 3,531,232, 9-29-70, Cl. 113-121.

Cardarelli, Nathan F., to United States of America, Navy, mesne. Method of making radiation resistant fabric. 3,489,591, 1-13-70, Cl. 117-66.

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Cardenas, Armando; and Martindale, John W., to Goodrich, B. F., Company, The. Tire curing apparatus and method. 3,506,748, 4-14-70, Cl. 264-94.

Cardenas, Carlos G., to Phillips Petroleum Company. Isomerization of acyclic trienes. 3,546,310, 12-8-70, Cl. 260-677.

Carder, Frank B.; Stumpe, Warren R.; Frassetto, Bruno S.; and Bell, Charles H., to Dorr-Oliver Incorporated. Cargo handling. 3,506,144, 4-14-70, Cl. 214-38.

Carder, Jimmy Louis, to Du Pont de Nemours, E. I., and Company. Process for applying liquid to sheets of fiber. 3,511,730, 5-12-70, Cl. 156-163.

Carder, Victor H.: *See—*
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Cardiac Electronics, Inc.: *See—*
Crovella, Edward A., 3,548,807.
McLaughlin, Joseph H., 3,527,228.

Cardile, Angelo J., to RCA Corporation. Positionable aperture for electron microscope. 3,535,514, 10-20-70, Cl. 250-49.5

Cardinal Industries, Inc.: *See—*
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Cardinal Instrument Corporation: *See—*
Henning, Francis L.; and Marsilia, Louis P., 3,521,490.
Cardinal of Adrian, Inc.: *See—*
MacDonald, Robert D., 3,498,001.
Cardis, Donald R., to Becton, Dickinson and Company, mesne. Apparatus for laminating fabricating stock. 3,522,132, 7-28-70, Cl. 156-494.
Cardno, Richard A.; and Hill, Milton J., to PPG Industries, Inc. Glass color streak detector including a flexible background material biased against the glass. 3,519,362, 7-7-70, Cl. 356-237.
Cardon, Christian: *See—*
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Cardot, Jean, to Compagnie de Saint-Gobain. Glass melting with different melting temperature components. 3,532,483, 10-6-70, Cl. 65-135.
Cardwell, Paul H., to Dow Chemical Company, The. Apparatus for measuring charge condition within a solution. 3,526,827, 9-1-70, Cl. 324-32.
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Daugherty, David W., Jr., 3,542,212.
Rauglas, Gerard, 3,512,619.
Cardwell, William R.; Johnson, Lloyd E.; Lowry, Denis E.; O'Brian, Paul L.; and Shattuck, David C., to International Business Machines Corporation. Support frames for planar circuit boards. 3,541,396, 11-17-70, Cl. 317-101.
Cardwell, William T., Jr. Cup-mouthpiece wind instruments. 3,507,181, 4-21-70, Cl. 84-388.
Caregnato, Cesare. Quick claw-and-flange coupling for pipes. 3,494,641, 2-10-70, Cl. 285-311.
Carel, Alfred B.; and Haase, Donald J., to Continental Oil Company. Chromatographic analysis method and apparatus. 3,496,702, 2-24-70, Cl. 55-67.
Carella, Giovanna: *See—*
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Caretta, Renato; and Pacciarini, Antonio, to Pirelli S.p.A. Device for curing pneumatic tires or similar hollow article. 3,520,024, 7-14-70, Cl. 18-17.
Carevic, Frank E.; and Sannella, Joseph L., to FMC Corporation. Method of forming delustered finishes on thermosetting resins. 3,533,875, 10-13-70, Cl. 156-289.
Carevic, Frank E.: *See—*
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Carey, Carl M., to Harris-Intertype Corporation. Sheet feeding apparatus. 3,542,360, 11-24-70, Cl. 271-54.
Carey, Donald F., to Thiokol Chemical Corporation. Frangible molds. 3,520,509, 7-14-70, Cl. 249-61.
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Blomgren, Roland A.; Dokter, Henry J.; Murphy, Robert E.; Carey, Harry W.; and Waxler, Burton J.,3,519,442.
Carey, James J., to Carbone Corporation, The. Carbon brush assembly. 3,534,206, 10-13-70, Cl. 310-247.
Carey, Jane T.; and Fracchia, Alfred A. Surgical apparatus for use with a diseased lung or the like and related method. 3,521,640, 7-28-70, Cl. 128-334.
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Carey, Larry C.; and Stone, Ira N., to Stone Container Corporation, and Cooper Industries, Inc. Display package and method of forming display packages. 3,523,397, 8-11-70, Cl. 53-30.
Carey, Leo J.; and Mc Intire, Joseph N., said Mc Intire assor to said Carey. Selective speed signs actuated by vehicle speed sensing. 3,544,958, 12-1-70, Cl. 340-31.
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Carey, Robert J.; Bryant, George M.; and Walter, Andrew T., to Union Carbide Corporation. Elastomer-backed carpet. 3,519,526, 7-7-70, Cl. 161-67.
Carey, Thomas Francis. Retractable swimming pool cover. 3,499,174, 3-10-70, Cl. 4-172.14
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Cargile, Neil H., Jr. Method and apparatus for handling tubular members at offshore locations. 3,508,409, 4-28-70, Cl. 61-46.5
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Cargo, George K. Fluid-operated pump and refrigerant system containing the same. 3,494,137, 2-10-70, Cl. 62-84.
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Carhart, David E. Crop cutter. 3,548,952, 12-22-70, Cl. 171-95.
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Carino, Anthony J. Adjustable bulkhead. 3,540,383, 11-17-70, Cl. 105-376.
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Cariou, Frank E.; and Gajary, Maria M., to General Dynamics Corporation. Method of vacuum vapor depositing a material on a substrate including reconstitution of decomposed portions of the material. 3,492,152, 1-27-70, Cl. 117-93.4
Carissimi, Vincent L., to Hubbell, Harvey, Incorporated. Accessory for heavy duty connectors. 3,521,218, 7-21-70, Cl. 339-44.
Carkhuff, Donald Wesley, to Union Carbide Corporation. Metal-inert-gas welding torch. 3,541,298, 11-17-70, Cl. 219-130.
Carl, Allen E. Apparatus for measuring and cutting lengths of cable. 3,523,392, 8-11-70, Cl. 51-99.
Carl Braun Camerawerk: *See—*
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Carl, Louis H.; Braunecker, Ambrose J.; and Brightman, Ben W., to Whirlpool Corporation. Snow free forced air refrigerator. 3,522,712, 8-4-70, Cl. 62-414.
Carl, Wolfgang; Wandel, Martin; Glabisch, Dietrich; and Reichle, Alfred, to Farbenfabriken Bayer Aktiengesellschaft. Flameproofed textile fabrics and method therefor. 3,507,688, 4-21-70, Cl. 117-136.
Carl Zeiss-Stiftung: *See—*
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Littmann, Hans; and Littmann, Gert, 3,535,027.
Carlani, Joseph Almont, Jr. Waste disposal system. 3,497,062, 2-24-70, Cl. 210-70.
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Carleton, James T.: *See—*
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Carleton, Robert G., to Honeywell Inc. Communication multiplexing apparatus. 3,500,466, 3-10-70, Cl. 340-172.5
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Carley, Emilie Lucille, to National Distillers and Chemical Corporation. Laminated plastic sheet having the transverse gauge bands of laminated sheet nested with respect to one another. 3,524,793, 8-18-70, Cl. 161-119.
Carley, James A., to Los Angeles Miniature Products, Inc. Insignia-bearing panel assembly. 3,531,881, 10-6-70, Cl. 40-130.
Carley, James A.; Mc Roskey, Leonard H.; and Parsons, Robert Q., said Mc Roskey, Leonard, assor of 1/2 to Mc Roskey, John W., and Mc Roskey, Catherine. Force responsive switch. 3,518,384, 6-30-70, Cl. 200-61.45
Carli, Roberto; Gervasio, Vincenzo; and Spallanzani, Giorgio, to SNAM S.p.A. Electronic simulator for cylinders of reciprocating compressors. 3,506,819, 4-14-70, Cl. 235-184.

Carlick, Daniel J.: *See—*
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Nass, Gerald I.; Bassemir, Robert W.; and Carlick, Daniel J.,3,551,311.
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Carlin, Joseph T., to Texaco Inc. Pipeline transportation of viscous hydrocarbons. 3,490,471, 1-20-70, Cl. 137-13.
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Molt, Kenneth R.; and Hechenbleikner, Ingeniun, 3,519,667.
Stapfer, Christian H., 3,524,831.
Weisfeld, Lewis B., 3,493,536.
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Carlisle, Michael D. Automatic battery charger. 3,496,442, 2-17-70, Cl. 320-18.
Carlisle, Neil K.: *See—*
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Carlisle, Raymond Melvin; and Loose, Winfield Warren, to AMP Incorporated. Selector switch provided with selectably actuable contact means. 3,546,401, 12-8-70, Cl. 200-1.
Carlisle, Sanford K., Jr.; and Gordon, George F., to Diamond Crystal Salt Company. Packet dispenser. 3,517,577, 6-30-70, Cl. 83-23.
Carlisle, Shirley Gillian, to Eaton T. Company Limited, The. Method of teaching the use of business machines. 3,505,745, 4-14-70, Cl. 35-5.
Carlisle, Thomas E.: *See—*
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Carliss, Oswald S., to Eaton Yale & Towne, Inc. Lift truck carriage and fork therefor. 3,528,580, 9-15-70, Cl. 214-750.
Carll, Walter T. Method of treating and for storage of tobacco. 3,504,680, 4-7-70, Cl. 131-140.
Carlmark, Rolf. Self-locking tightener for belts, wires and the like. 3,537,148, 11-3-70, Cl. 24-68.
Carlo, Eliot Joseph. Welding transformer. 3,550,053, 12-22-70, Cl. 336-118.
Carlo, Eliot Joseph. Limited range transformer with a tap changing system. 3,550,054, 12-22-70, Cl. 336-120.
Carlomagno, Carmen F.: *See—*
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Carlomagno, Joseph, Jr., to Carlomagno, Joseph, Jr. Carlomagno, Carmen F., and South Pacific Company. Three-dimensional carton-spacer. 3,534,691, 10-20-70, Cl. 105-369.
Carlon, Kenneth G.: *See—*
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Carlos, Donald D.: *See—*
Burk, Emmett H., Jr.; and Carlos, Donald D.,3,507,900.
Burk, Emmett H., Jr.; and Carlos, Donald D.,3,544,583.
Carlos, Donald D., to Sinclair Oil Corporation. Aqueous hydroxylamine solutions stabilized with hydroxyurea or hydroxythiourea derivatives. 3,544,270, 12-1-70, Cl. 23-190.
Carlos, Donald D.; Chambers, Robert R.; and Young, David W., to Sinclair Research, Inc. Oil-soluble acylated hydroxyl-containing diene polymers having at least one primary, terminal, allylic acyl group. 3,531,513, 9-29-70, Cl. 260-476.
Carlough, Warren A., Jr., to Xerox Corporation. Highly corrected six element Gauss type lens. 3,508,812, 4-28-70, Cl. 350-221.
Carlow, Earl F., to Motorola, Inc. Multi-frequency signal generation. 3,518,552, 6-30-70, Cl. 328-43.
Carlsen, Albert; and Evans, Armstead J. Method for comminuting and drying cooked food products. 3,517,716, 6-30-70, Cl. 146-230.
Carlsen, Jon Erik Marius. Metal-casting apparatus. 3,548,922, 12-22-70, Cl. 164-309.
Carlsmith, Lawrence Allan, to Improved Machinery Inc. Press having fluid supported drive conveyor. 3,532,050, 10-6-70, Cl. 100-118.
Carlson, Adolph C.: *See—*
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Ott, Donald E.; and Carlson, Arthur W.,3,547,505.
Carlson, Axel S. Ground vase. 3,541,727, 11-24-70, Cl. 47-41.1
Carlson, Carl B.; Dent, Benjamin A.; and McKeeman, William M., to Burroughs Corporation. Address manipulation circuitry for a digital computer. 3,510,847, 5-5-70, Cl. 340-172.5
Carlson, Carl W.: *See—*
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Carlson, Chesley F., Co.: *See—*
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Carlson, Chester F., to Xerox Corporation, mesne. Duplex xerographic reproduction apparatus. 3,506,347, 4-14-70, Cl. 355-3.
Carlson, Clarence A., to General Electric Company. Reaction-extraction and analysis chamber and related equipment. 3,551,111, 12-29-70, Cl. 23-253.
Carlson, Dana Peter, to Du Pont de Nemours, E. I., and Company. Process for homopolymerization of tetrafluoroethylene and copolymerization of same with fluoro comonomers in the solvent 1,1,2-trichloro-1,2,2- trifluoroethane. 3,528,954, 9-15-70, Cl. 260-87.5
Carlson, Dana Peter, to Du Pont de Nemours, E. I., and Company. Method for the preparation of halogenated epoxides. 3,536,733, 10-27-70, Cl. 260-348.5
Carlson, David E.; Dalyai, Stephen A.; Gallina, Alfonso V.; Robinson, Edgar R.; Votaw, Clarence J.; and Warwick, Peter S., to Bell Telephone Laboratories, Incorporated. Selective calling line controller for alternatively test polling remote stations or starting remote station transmitters. 3,526,877, 9-1-70, Cl. 340-147.
Carlson, David J., to RCA Corporation. Ultra-high frequency transistor oscillator. 3,510,802, 5-5-70, Cl. 331-117.
Carlson, David J., to RCA Corporation. Field-effect transistor amplifier. 3,513,405, 5-19-70, Cl. 330-29.
Carlson, David J., to RCA Corporation. UHF-VHF tuner with U-shaped strip balanced transmission line. 3,551,819, 12-29-70, Cl. 325-461.
Carlson, Donald A., to Ampex Corporation. Apparatus for reproducing color television signals wherein a pilot signal is utilized for eliminating hue errors due to time base variations. 3,506,777, 4-14-70, Cl. 178-5.4
Carlson, Donald A., to Teletype Corporation. Electronic AC switch. 3,551,701, 12-29-70, Cl. 307-252.
Carlson, Elmer T., to Broadhill Development Corporation. Electrical conduit. 3,504,097, 3-31-70, Cl. 174-68.
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Carlson, Elmer V., to Industrial Research Products, Inc. Method of connecting drive pin to an armature of an electroacoustic transducer. 3,491,436, 1-27-70, Cl. 29-594.
Carlson, Ernest C., to International Harvester Company. Multi-blade rotary mower. 3,508,385, 4-28-70, Cl. 56-25.4
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Carlson, Ernest R.; and Lipinski, Vincent F., to Hubbell, Harvey, Incorporated. Grounding means for protective shells of electrical connector devices. 3,500,286, 3-10-70, Cl. 339-14.
Carlson, Everett R. Tree suspended enclosure. 3,545,461, 12-8-70, Cl. 135-1.
Carlson, Gordon R. Macerator unit. 3,510,000, 5-5-70, Cl. 210-152.
Carlson, Gustav E.: *See—*
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Carlson, Joel A. Fishing rod container. 3,515,263, 6-2-70, Cl. 206-16.
Carlson, John A., Jr.; Singleton, Alan H.; and Stelts, Philip D., to Air Products and Chemicals, Inc. Methods of and apparatus for liquid-vapor contact and phase separation. 3,548,568, 12-22-70, Cl. 55-84.
Carlson, John H. Dimensionally stabilized gears. 3,546,959, 12-15-70, Cl. 74-439.
Carlson, John H.; and Robinson, Hugh A., to USM Corporation. Actuators employing preloaded wave generators. 3,496,782, 2-24-70, Cl. 74-10.8
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Carlson, Marshall A.; and Nelson, Norbert L., to AVM Corporation. Degating fixture. 3,540,639, 11-17-70, Cl. 225-97.
Carlson, Melvin J., to United States of America, Army. Apparatus for pulse forming. 3,528,596, 9-15-70, Cl. 228-3.

Carlson, Norman G.: *See—*
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Carlson, Norman R., to Westinghouse Electric Corporation. Method for controlling phosphorus removal in a basic oxygen furnace. 3,540,879, 11-17-70, Cl. 75-60.
Carlson, Norman R.; Putman, Richard E. J.; and Carleton, James T., to Westinghouse Electric Corporation. Direct sampler for use in basic oxygen furnaces and the like. 3,503,259, 3-31-70, Cl. 73-354.
Carlson, Norman R.; and Zahradnik, Raymond L., to Westinghouse Electric Corporation. Computer control of metal treatment furnace operation. 3,534,143, 10-13-70, Cl. 13-1.
Carlson, Otto K.; and Price, John A., to FMC Corporation. Acetylacetonate transesterification catalysts. 3,532,671, 10-6-70, Cl. 260-75.
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Carlson, Richard D.; and Hodan, James J., to Hooker Chemical Corporation. Fire retardant additive. 3,527,722, 9-8-70, Cl. 260-22.
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Carlson, Roland O. Laminated panel construction and method of making same. 3,503,833, 3-31-70, Cl. 161-36.
Carlson, Ronald H., to Hooker Chemical Corporation. Metal sequestrant. 3,499,842, 3-10-70, Cl. 252-180.
Carlson, Roy W., to Teledyne, Inc. Meter for measuring compressive stress in earthen masses and the like. 3,529,468, 9-22-70, Cl. 73-88.5
Carlson, Rueben C., to Standard Kollsmann Industries Inc. Pushbutton selector switch. 3,489,867, 1-13-70, Cl. 200-5.
Carlson, Thomas W. Signboard wind load limiting apparatus. 3,521,390, 7-21-70, Cl. 40-125.
Carlson, Wayland A., to United States of America, Navy. Synchronization system. 3,541,552, 11-17-70, Cl. 343-225.
Carlsson, Bengt, to AB Motala Verkstad. Arrangement in single storey presses for chipboard fibreboard or the like. 3,526,188, 9-1-70, Cl. 100-257.
Carlsson, Carl Ingvar; and Sandren, Sven Erik, to Bofors-Tidaholmsverken Aktiebolag. Window moulding for passenger trailers and the like. 3,534,501, 10-20-70, Cl. 49-397.
Carlsson, Herbert: *See—*
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Carlsson, Inge Lennart; and Lydig, Knut Gosta Verner, to Abiteta Pak. Regular polygonal transport containers for tetrahedral objects. 3,531,043, 9-29-70, Cl. 229-37.
Carlsson, Rolf, to Oy Wartsila AB. Attachment means for a lock cylinder. 3,501,933, 3-24-70, Cl. 70-371.
Carlsson, Stig Ake Ingemar: *See—*
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Carlstedt, Paul R.: *See—*
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Carlston, Carl E.: *See—*
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Carlston, Earl F., to Chevron Research Company. Colored aluminum-bituminous coating compositions. 3,511,675, 5-12-70, Cl. 106-280.
Carlston, Earl F.; and Ellis, William H., to Chevron Research Company. Thixotropic, non-sag, one-coat paint. 3,513,117, 5-19-70, Cl. 260-22.
Carlstrom, Carl F., to General Industries, Inc. One-piece sheet metal hollow ball for ball valves. 3,505,718, 4-14-70, Cl. 29-157.1
Carlstrom, Lawrence A.; and Farrell, William M., to General Electric Company. Gas turbine rotor bucket cooling and sealing arrangement. 3,490,852, 1-20-70, Cl. 416-95.
Carlton, Ewell Lee. Splash guards. 3,497,238, 2-24-70, Cl. 280-154.5
Carlton, Ewell Lee. Sealant containers and dispensers. 3,504,826, 4-7-70, Cl. 222-82.
Carlton Machine Tool Company, The: *See—*
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Carlton, William C., to Carlton Sports Company Limited. Method of preparing for stringing the frame of a games racket. 3,548,484, 12-22-70, Cl. 29-423.
Carlyon, Richard A., Jr. Agricultural apparatus. 3,512,713, 5-19-70, Cl. 239-127.
Carmack, Howard W. Vehicle detector and pulse generator therefor. 3,541,347, 11-17-70, Cl. 307-108.
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Carmichael, Duncan G., to Martin-Marietta Corporation. Water insoluble monoazo dyestuffs. 3,497,495, 2-24-70, Cl. 260-207.1
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Carrow, Guy E., to Phillips Petroleum Company. Thermoplastic extrusion. 3,492,310, 1-27-70, Cl. 260-32.6
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Carruth, Winford B., to Bendix Corporation, The. Electric motor speed control. 3,517,291, 6-23-70, Cl. 318-332.
Carruth, Winford B.; and Carp, Ralph W., to Bendix Corporation, The. Headlamp time delay circuit and means for adjustment thereof. 3,544,838, 12-1-70, Cl. 315-83.
Carruthers, Eben H.; and Cunningham, Robert G. Tone hole closure mechanism for wind instruments. 3,501,991, 3-24-70, Cl. 84-380.
Carruthers, Nigel Victor, to U.S. Philips Corporation, mesne. Lift selector employing wiper arms serially engaging a bank of diode interconnected contacts. 3,528,528, 9-15-70, Cl. 187-29.
Carruthers, Robert; and Cornish, Donald Nelson, to United Kingdom Atomic Energy Authority. Superconductors. 3,497,844, 2-24-70, Cl. 335-216.
Carruthers, Ronald W., Sr.: *See*—
Hoffman, Benjamin F.; and Carruthers, Ronald W., Sr.,3,518,453.
Carsello, Anthony J. Valve and seal therefor. 3,510,103, 5-5-70, Cl. 251-333.
Carsey, Eugene A., to Kirk & Blum Manufacturing Co., The. Dust collecting plenum installation. 3,509,911, 5-5-70, Cl. 137-602.
Carsey, Eugene A., to Kirk & Blum Manufacturing Co., The. Chip entraining and removal apparatus for metal cutting machines. 3,534,658, 10-20-70, Cl. 90-15.
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Carson, Don B., to Universal Oil Products Company. Multiple stage reactor suitable for high pressures. 3,498,756, 3-3-70, Cl. 23-289.
Carson, Don B.; and Uitti, Kenneth D., to Universal Oil Products Company. Catalytic conversion process. 3,515,767, 6-2-70, Cl. 260-669.
Carson, Frank J., to Libbey-Owens-Ford Company. Edge grinding apparatus. 3,525,181, 8-25-70, Cl. 51-101.
Carson, Frank J.; and Ritter, George F., Jr., to Libbey-Owens-Ford Company. Method of reshaping glass sheets by differential cooling. 3,522,029, 7-28-70, Cl. 65-104.
Carson, Frank J.: *See*—
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Welker, Robert H.; Carson, Frank J.; and Schroder, Robert J.,3,488,852.
Carson, John R., to McNeil Laboratories, Incorporated. Benzazonine derivatives. 3,493,578, 2-3-70, Cl. 260-293.
Carson, John William, to Reynolds Metals Company. Continuous casting method and apparatus for controlling freeze line location. 3,502,133, 3-24-70, Cl. 164-4.
Carson, Joseph R., Jr.: *See*—
Beacham, Francis W.; Bushnell, Thomas W.; and Carson, Joseph R., Jr.,3,519,264.
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Carson, Monte A. Sprinkler cage. 3,514,040, 5-26-70, Cl. 239-288.5
Carson, Raymond M.; and Carson, Wesley R. Adjustable plant string clip. 3,518,791, 7-7-70, Cl. 47-47.
Carson, Raymond R. Machine for gathering, stacking and transporting hay. 3,538,696, 11-10-70, Cl. 56-350.
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Carson, Raymond M.; and Carson, Wesley R.,3,518,791.
Carson, William N., Jr., to General Electric Company. Deep submergence rechargeable sealed secondary cell. 3,540,929, 11-17-70, Cl. 136-6.
Carson, William N., Jr; and King, Randall N., to General Electric Company. Coulometer with at least one electrode containing an excess of cadmium hydroxide. 3,538,396, 11-3-70, Cl. 317-231.
Carson, William N., Jr.: *See*—
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Carson, William S., Jr., to Scottdel, Inc. Apparatus for processing material. 3,517,414, 6-30-70, Cl. 18-16.5
Carss, Beverley; and Leyshon, David Morgan, to Imperial Chemical Industries Limited. Production of hexamethylene diamine. 3,488,390, 1-6-70, Cl. 260-583.
Carstens, Jorgen V. Device for feeding sheets. 3,533,618, 10-13-70, Cl. 271-51.
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Carstensen, Walter H.; and Reisbach, Raymond A., to Owens-Illinois, Inc. Glass-metal joining apparatus. 3,493,358, 2-3-70, Cl. 65-154.
Carswell, Donald R.; and Hurlburt, John C., to National Dairy Products Corporation. Method of making cream cheese. 3,492,129, 1-27-70, Cl. 99-116.
Cart-Trac, Inc.: *See*—
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Kelley, Jerry O., 3,501,103.
Carta, Mario; Ferrara, Gianfranco; Delfa, Clemente; and Ciccu, Raimondo, to Consiglio Nazionale Delle Ricerche. Process and apparatus for electrostatically separating ores with charging of the particles by triboelectricity. 3,493,109, 2-3-70, Cl. 209-11.
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Carter, Andrew P.: *See*—
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Carter, Arthur L., to Eastman Kodak Company. Decanting apparatus. 3,530,875, 9-29-70, Cl. 137-172.
Carter, Arthur L.; and Forster, Donald M., to Eastman Kodak Company. Filter arrangement. 3,513,982, 5-26-70, Cl. 210-435.
Carter, B. & F., & Co. Limited: *See*—
Santer, Sidney Richard, 3,504,487.
Carter, Cecil O.: *See*—
Hutson, Tom, Jr.; and Carter, Cecil O.,3,506,409.
Carter, Clarence F., to Carter Engineering Company. Apparatus for filling containers in a vacuum environment. 3,542,091, 11-24-70, Cl. 141-65.
Carter, Clarence J.; and Stewart, Richard F., to Texas Instruments, Incorporated. Diode array and process for making same. 3,514,345, 5-26-70, Cl. 148-33.
Carter, Cyril L. Self-aligning trailer hitch. 3,521,908, 7-28-70, Cl. 280-479.
Carter, Don E., to Monsanto Company. Apparatus for producing filter cakes and recovering a process filtrate therefrom. 3,490,592, 1-20-70, Cl. 210-106.
Carter, Don E., to Monsanto Company. Throttling conversion meter. 3,521,479, 7-21-70, Cl. 73-28.
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Carter, Duncan L. Log-periodic antenna array having closely spaced linear elements. 3,503,074, 3-24-70, Cl. 343-792.5
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Carter, Ernest P.; and Vest, Chilton T., to Monsanto Company. Cut pile type synthetic turf simulating grass. 3,551,263, 12-29-70, Cl. 161-21.

Carter, Eugene H.; and Wheeler, Albert C., to General Electric Company. Trench header duct system. 3,530,627, 9-29-70, Cl. 52-221.

Carter, Findlay A.: *See—*
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Carter, Floyd Walter, Jr., to Columbia Steel Casting Co., Inc. Bowl liner for rock crusher. 3,533,569, 10-13-70, Cl. 241-207.

Carter, Glester S.; and Case, Charles B., said Carter assor. to said Case. Child's nightlight and music box. 3,525,862, 8-25-70, Cl. 240-2.

Carter, J. C., Company, The: *See—*
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Carter, J. Warne, to Ciba Corporation. Device for advancing and rotating pipe. 3,507,412, 4-21-70, Cl. 214-338.

Carter, Jack M.: *See—*
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Carter, James B., Ltd.: *See—*
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Carter, Jay B.: *See—*
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Carter, John Elton, Jr., to Wham-O Mfg., Co. Elastically suspended and controlled game device. 3,498,614, 3-3-70, Cl. 273-95.

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Carter, Joseph H. Toy chain saw including sounder. 3,491,479, 1-27-70, Cl. 46-39.

Carter, Joseph H. Shotgun shell. 3,550,531, 12-29-70, Cl. 102-42.

Carter, Lee R. Vehicle parking apparatus with a plurality of rotatable support members. 3,511,389, 5-12-70, Cl. 214-16.1

Carter, Lloyd G.: *See—*
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Carter, Mary E., to FMC Corporation. Regenerated cellulose filaments having high resiliency. 3,549,308, 12-22-70, Cl. 8-116.3

Carter, Mary E.; and Price, John A., to FMC Corporation. Ammonium aresenates, organo-substituted arsenates, and sodium, potassium and calcium arsenite as first stage catalytic additives in direct esterification process. 3,496,145, 2-17-70, Cl. 260-75.

Carter, Mary E.; Price, John A.; and Mervine, Robert P., to FMC Corporation. Hexafluorosilicate additives in polyester preparation. 3,506,618, 4-14-70, Cl. 260-75.

Carter, Mary E.; Price, John A.; and Stewart, Mary J., to FMC Corporation. Process of preparing polyethylene terephthalate resin using a Group IVA, VA, or VIII metal salt of orthorsenious acid or orthoarsenic acid as polycondensation catalyst. 3,509,099, 4-28-70, Cl. 260-75.

Carter, Mary E.; and Smith, Patricia A., to FMC Corporation. Preparation of polyesters from a bis-hydroxyalkyl ester of an aromatic dicarboxylic acid. 3,507,836, 4-21-70, Cl. 260-75.

Carter, Maurice Sterling. Method and apparatus for grinding and separating precious metals. 3,550,869, 12-29-70, Cl. 241-20.

Carter, Paul H.; and Collins, Richard D., to Maryland Cup Corporation. Filling machine. 3,526,255, 9-1-70, Cl. 141-183.

Carter, Paul H.: *See—*
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Carter, Philip S.; and Craig, Robert A. Power limiter comprising a chain of ferrite-filled dielectric resonators. 3,500,256, 3-10-70, Cl. 333-17.

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Carter, Russell E.: *See—*
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Carter, Sidney T., 'Automatic' Sprinkler Corporation of America, mesne. Container-filling apparatus. 3,516,455, 6-23-70, Cl. 141-90.

Carter, Sidney T., to Meyer, Geo. J., Manufacturing Co. Grip-finger for labeling machine. 3,549,457, 12-22-70, Cl. 156-476.

Carter, Stephen Barnaby, to Imperial Chemical Industries Limited. Cell culture slides. 3,503,665, 3-31-70, Cl. 350-95.

Carter, Thomas A., Jr., to Air Reduction Company, Incorporated. Bearing assembly. 3,494,291, 2-10-70, Cl. 103-87.

Carter, Uriel F., deceased (by Carter, Ruth, special administratrix); Kolb, Arthur F.; and Mallonen, Edward A., to Cutler-Hammer, Inc. Electrical circuit overload protector of the thermally responsive bimetal element type. 3,535,669, 10-20-70, Cl. 337-347.

Carter, Victor J., to Westinghouse Brake-English Electric Semi-Conductors Limited. Solder free variable pressure contacted semiconductor device. 3,504,238, 3-31-70, Cl. 317-234.

Carter, Willard J.; and Turner, Edwin John, to Kahr Bearing Corporation. Self-aligning bearing and method of forming and mounting thereof. 3,516,136, 6-23-70, Cl. 29-149.5

Carter, William A., to I-T-E Imperial Corporation, mesne. Adjustable three electrode spark gap. 3,510,716, 5-5-70, Cl. 313-147.

Carter, William Dale, to Eastman Kodak Company. Process for removing catalyst contaminants from polymerizable olefins. 3,488,339, 1-6-70, Cl. 260-93.7

Carter, William Randell, to Geo Space Corporation. Vibratory finishing method. 3,527,000, 9-8-70, Cl. 51-316.

Carter, William S. Guy anchor testing device. 3,543,569, 12-1-70, Cl. 73-95.

Carter, Woodward C., II, to Westinghouse Electric Corporation. System for controlling a strip material roll as a function of speed or tension of traveling strip material. 3,519,903, 7-7-70, Cl. 318-6.

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Cartinhour, John W., to Foster Wheeler Corporation. Multi-effect evaporator. 3,532,152, 10-6-70, Cl. 159-20.

Cartmell, Robert L., to Kurz-Kasch, Inc. Hand held instrument having a pair of indicator lamps for indicating voltage levels in electrical circuits. 3,525,939, 8-25-70, Cl. 324-133.

Carton, Edwin B., to Polymer Dispersions, Inc., mesne. Process for producing dispersions of finely-divided solids in isotactic polypropylene. 3,503,922, 3-31-70, Cl. 260-41.

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Cartsunis, Louis P.; and Kindron, Robert R., to FMC Corporation. Bleaching of wood pulps with reductive bleaching agents and thiourea. 3,507,743, 4-21-70, Cl. 162-72.

Carturan, Imerio. Machine for cutting cheese. 3,509,628, 5-5-70, Cl. 31-25.

Cartwright, Delmar G.; and Pinede, Edouard, to International Telephone and Telegraph Corporation. Miniature intercommunication key telephone system. 3,524,931, 8-18-70, Cl. 179-1.

Carty, Margaret F., to H-2-O Filter Corporation, The. Filter element for smoking devices. 3,502,084, 3-24-70, Cl. 131-10.1

Carty, Margaret F., to H-2-O Filter Corporation, The. Filter for smoking devices. 3,513,859, 5-26-70, Cl. 131-267.

Carty, Margaret F., to H-2-O Filter Corporation, The. Water-reactive filter element for smoking devices and means for securing the assembly within the housing. 3,530,861, 9-29-70, Cl. 131-264.

Carubelli, Raul, to Research Corporation. Process for lactulose. 3,505,309, 4-7-70, Cl. 260-209.

Caruso, John S. Air pollution control device. 3,531,931, 10-6-70, Cl. 60-30.

Caruso, John T., 'Automatic' Sprinkler Corporation of America. Demand valve. 3,493,011, 2-3-70, Cl. 137-484.2

Caruth, Juanita W. Wall closure unit. 3,491,486, 1-27-70, Cl. 49-463.

Caruthers, John E.; and Deal, Robert E., said Caruthers assor. to Central Transformer Corporation, and said Deal Assor. to Kearney-National, Inc. Underground electric power distribution system. 3,488,563, 1-6-70, Cl. 317-157.6

Carvell, Bernard J. Clamping device. 3,512,228, 5-19-70, Cl. 24-243.

Carvell, Robert, Jr., to Texas Instruments, Incorporated. Method of preparing phosphors and color display systems containing same. 3,523,905, 8-11-70, Cl. 252-301.6

Carvell, Robert, Jr., to Texas Instruments, Incorporated. Phosphors for color display systems. 3,540,908, 11-17-70, Cl. 117-33.5

Carver, Paige E. Necktie assistant. 3,510,032, 5-5-70, Cl. 223-111.

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Casadio, Silvano, to Instituto de Angeli S.p.A. Terpenic esters of glucocorticoids. 3,488,421, 1-6-70, Cl. 424-243.

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Casaleggi, Charles J., to Purolator Products, Inc. Cover plate for spin-on filter. 3,490,597, 1-20-70, Cl. 210-443.

Casalina, Samuel L. Irradiating mushrooms and their growing soil. 3,527,645, 9-8-70, Cl. 99-100.

Casalina, Samuel L., to Di Giorgio Corporation. Solid objects containing lignocellulose particles and radiation-induced polymer and method of making same. 3,549,509, 12-22-70, Cl. 204-159.12

Casalina, Samuel L., to Di Giorgio Corporation. Polymer-treated irradiated bendable sheets of lignocellulose and method of making same. 3,549,510, 12-22-70, Cl. 204-159.12

Casani, John R.; Deichler, Charles; Pounder, Edwin; and Schneiderman, Daniel, to Transdynamics, Incorporated. Knotmeter. 3,531,988, 10-6-70, Cl. 73-187.

Casanov, Raymond C., to Teletype Corporation. Screw positioning device. 3,494,393, 2-10-70, Cl. 144-32.

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Casas Simon, Juan. Arrangement for discharging static electricity in bodies moulded from insulating material. 3,532,932, 10-6-70, Cl. 317-2.

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Case, Bernard; and Hell, Wilfried H., to Marquardt Corporation, The. Solid state electro-optical contact scanner. 3,544,713, 12-1-70, Cl. 178-7.1

Case, Cecil L., to Hesston Corporation, Inc. Speed, steering and direction control for vehicles. 3,528,519, 9-15-70, Cl. 180-6.48

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Case, Edward M.: *See—*
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Case, Everett N., to Sinclair Research, Inc. Process of making large coke particles. 3,524,806, 8-18-70, Cl. 208-46.

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Case, John J. Tool cabinet. 3,520,583, 7-14-70, Cl. 312-277.

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Case, John S., to Anchor Post Products, Inc. Hook bolt for fabric fence. 3,544,071, 12-1-70, Cl. 256-47.

Case, John William; and Shaw, John, to Imperial Chemical Industries Limited. Process for textile treatment. 3,510,250, 5-5-70, Cl. 8-139.1

Case, John William; and Shaw, John, to Imperial Chemical Industries Limited. Textile processing. 3,542,506, 11-24-70, Cl. 8-142.

Case, John William; and White, Wilfred Arthur Stephen, to Imperial Chemical Industries Limited. Textile treatment. 3,493,320, 2-3-70, Cl. 8-137.

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Case, Laura K., to Itek Corporation. Photographic developer systems. 3,512,972, 5-19-70, Cl. 96-48.

Case, Leslie Catron. Novel polyether polyols and process for preparing the same. 3,510,471, 5-5-70, Cl. 260-209.

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Case, Versie; and Migliaccio, James. Safety check valve for vehicle borne liquid tanks. 3,530,882, 9-29-70, Cl. 137-588.

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Casely, Robert E.; and Noel, Darwin R., deceased (by Noel, Mary C.; administratrix), to Armour-Dial, Inc. Antiseptic compositions. 3,503,886, 3-31-70, Cl. 252-107.

Casensky, Bohuslav; Machacek, Jiri; and Vit, Jaroslav. Method of producing sodium aluminum hydrides. 3,507,895, 4-21-70, Cl. 260-448.

Casey, Edward H., to ACF Industries, Incorporated. Piezoelectric pump. 3,520,641, 7-14-70, Cl. 417-412.

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Casey, Harry B.; Woods, John G.; and Wood, George W., to TRW Inc. Subminiature trimmer potentiometer. 3,533,042, 10-6-70, Cl. 338-162.

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Casey, John L.; and Dobbs, James A., to Phillips Petroleum Company. Sampling valves. 3,535,939, 10-27-70, Cl. 73-422.

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Casey, Robert T., to General Electric Company. Modular type multistage interrupter with ionized gas assisting in breakdown and eventual arc extinction. 3,489,872, 1-13-70, Cl. 200-144.

Casey, Robert, to Caterpillar Tractor Company. Parking and emergency brake sytem. 3,528,707, 9-15-70, Cl. 303-10.

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Cashau, George R.; and George, James W., to Western Electric Company, Incorporated. Methods of etching chromium patterns and photolithographic masks so produced. 3,539,408, 11-10-70, Cl. 156-4.

Cashau, George R.; and George, James W., to Western Electric Company, Incorporated. Photolithographic masks and methods for their manufacture. 3,542,612, 11-24-70, Cl. 156-13.

Cashman, Robert W.; and Wasco, Anthony, Jr., to Saginaw Machine and Tool Company. Tool holder construction. 3,500,523, 3-17-70, Cl. 29-96.

Cashman, Robert W.; and Wasco, Anthony, Jr., to Saginaw Machine and Tool Company. Shaft mounting assembly for wheel dresser or the like. 3,502,064, 3-24-70, Cl. 125-11.

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Caskey, William J.; and Burke, William J., to Speed Equipment Incorporated. Dispenser with cutting means for rolls of wrapping film. 3,510,034, 5-5-70, Cl. 225-77.

Casner, Bernard G.; and Goulstone, Ray T., to Western Electric Company, Incorporated. Methods and apparatus for the magnetic separation of fine parts. 3,507,389, 4-21-70, Cl. 209-111.8

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Cason, Charles M., III; and Perkins, James F., to United States of America, Army. Non-cavity laser configuration. 3,551,843, 12-29-70, Cl. 331-94.5

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Cassel, Thomas R.; Redding, Harry L.; and Walford, John A., to General Motors Corporation. Branched conduit. 3,504,709, 4-7-70, Cl. 138-116.

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Casselman, James S. Toothpaste ejector toothbrush. 3,549,268, 12-22-70, Cl. 401-154.

Cassidy, Francis D., to RCA Corporation. Random-acess memory organization. 3,500,360, 3-10-70, Cl. 340-174.

Cassidy, Francis D., to RCA Corporation. Magnetic memory with noise- cancellation sense wiring. 3,518,640, 6-30-70, Cl. 340-174.

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Cassidy, Patrick J.; and Quammen, Milton L., to United States of America, Army. Method and apparatus for module alignment of ocular systems. 3,501,983, 3-24-70, Cl. 82-1.

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Castaing, Raymond Bernard Rene; and Bernheim, Marc Pierre Robert, to Etablissement Public: Centre National de la Recherche Scientifique. Process and apparatus for micro-machining and treatment of materials. 3,534,385, 10-13-70, Cl. 219-121.

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Castaldi, John A., to Supreme Equipment & Systems Corporation. Storage system with an automatic search and retrieval vehicle with an article guide means thereon. 3,490,616, 1-20-70, Cl. 214-16.4

Castaldi, John A., to Supreme Equipment & Systems Corporation. Storage retrieval apparatus with positional control means. 3,526,326, 9-1-70, Cl. 214-16.4

Castaldi, John, to Supreme Equipment & Systems Corporation. Read head assembly for coded markings. 3,519,832, 7-7-70, Cl. 250-219.

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Ch'iu, Kuno M. Y. Water jet powered vessel. 3,487,806, 1-6-70, Cl. 115-70.
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Cha, Dae Yang; and Jahnke, Heinz K., to Upjohn Company, The. Process for isolating antibiotics. 3,515,717, 6-2-70, Cl. 260-210.
Chabala, Leonard V., to S & C Electric Company. High voltage circuit interrupter with graded insulating operating rods. 3,508,022, 4-21-70, Cl. 200-146.
Chabala, Leonard V.; and Rogers, Edward J., to S & C Electric Company. High voltage switch having auxiliary latch operating means for the current interrupter. 3,508,178, 4-21-70, Cl. 335-1.
Chabardes, Pierre Jean Antoine, to Rhone-Poulenc S.A. Triethylenic esters and acids and their preparation. 3,493,590, 2-3-70, Cl. 260-410.9
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Chabert, Henri; Perez, Albert; and Seibold, Gerard, to Rhone-Poulenc S.A. Dyeable propylene/styrene copolymers and mixtures with isotatic poly-olefins. 3,529,038, 9-15-70, Cl. 260-897.
Chablaix, Daniel. Installation for recovery of a liquid floating on a water surface. 3,529,720, 9-22-70, Cl. 210-123.
Chaboseau, Jean, to Compagnie Electro-Mecanique. Electrical machine incorporating gas bearings. 3,502,920, 3-24-70, Cl. 310-90.
Chabrier, Henri-Pierre, to SETARAM Societe d'Etudes d'Atomatisation de Regulation et d'Appareils de Mesures. Distributor device for fluids. 3,506,035, 4-14-70, Cl. 137-625.48

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Chaddha, Aroon K.; Jones, Trevor L.; and Stamatis, Sam P., to Wells-Gardner Electronics Corporation. Keyed fine tune indicator for color or monochrome TV. 3,518,365, 6-30-70, Cl. 178-5.8
Chadha, Rajendra Nath, to Stauffer-Wacker Silicone Corporation, mesne. Primer for silicone rubber adhesion. 3,498,824, 3-3-70, Cl. 117-72.
Chadwick, Alfred C.; and Hocher, Robert W., to Firestone Tire & Rubber Company, The. Epoxy-neoprene compositions. 3,501,434, 3-17-70, Cl. 260-33.6
Chadwick, David H.: *See—*
Cross, James M.; and Chadwick, David H.,3,522,310.
Chadwick, David H., to Mobay Chemical Company. Stabilization of organic isocyanates. 3,551,468, 12-29-70, Cl. 260-453.
Chadwick, David H.; and Powers, Eugene L., to Mobay Chemical Company. Stabilization of organic isocyanates. 3,527,782, 9-8-70, Cl. 260-453.
Chadwick, David H.; Rockstroh, Guenter K.; and Powers, Eugene L., to Mobay Chemical Company. Stabilization of organic isocyanates. 3,535,359, 10-20-70, Cl. 260-453.
Chadwick, Donald H.; and Apodaca, Ruben T., to International Electronics Research Corporation. Thermal dissipating metal core printed circuit board. 3,514,538, 5-26-70, Cl. 174-68.5
Chadwick, Duane G., to Thiokol Chemical Corporation. Precipitation measurement gauge. 3,487,684, 1-6-70, Cl. 73-171.
Chadwick, Victor James, to British Telecommunications Research Limited. Fluid control devices. 3,547,137, 12-15-70, Cl. 137-1.
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Mead, Theodore C.; and Chafetz, Harry,3,539,645.
Chaffee, Bertran J., to Czinger, John L., Jr. Door opening apparatus. 3,534,499, 10-20-70, Cl. 49-25.
Chaffee, Emery K., to Northrup, King & Co. Method of conditioning crop seeds. 3,521,402, 7-21-70, Cl. 47-58.
Chaffee, William H., to Model Builders, Inc. Condiment dispenser. 3,520,446, 7-14-70, Cl. 222-457.5
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Chaimson, Robert K., to United States of America, Navy. Release mechanism using two retractable piston actuators. 3,546,949, 12-15-70, Cl. 74-2.
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Chalmers, David Calder, to Polymer Corporation Limited. Rubbery alkyl acrylate copolymers. 3,510,442, 5-5-70, Cl. 260-23.
Chalmers, Edward D.; Bastian, Elmer; Hendriks, Johannes H.; and Tap, Henry H., to Oak Electro/Netics Corporation. All channel tuner. 3,537,044, 10-27-70, Cl. 334-43.
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Chaloka, Andrew, to Aero-Flow Dynamics, Inc. Apparatus for conditioning a flow of fluid. 3,489,204, 1-13-70, Cl. 165-35.
Chalom, Joseph Aron, to Condenseurs Delas. Ejector. 3,545,886, 12-8-70, Cl. 417-196.
Chalpin, Simon D. Combination packaging and storage unit. 3,527,346, 9-8-70, Cl. 206-78.
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Chamberlain, Lawrence J. Protective bandage. 3,528,416, 9-15-70, Cl. 128-154.
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Chamberlain, Richard K., to General Tire & Rubber Company, The. Liquid cooled wheel and brake assembly. 3,516,522, 6-23-70, Cl. 188-264.
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Chamberland, Bertrand L., to Du Pont de Nemours, E. I., and Company. Temperature-sensitive electronic conductors of fluorine-modified vanadium dioxide. 3,532,641, 10-6-70, Cl. 252-521.
Chamberland, Bertrand L.; and Rogers, Donald B., to Du Pont de Nemours, E. I., and Company. Temperature sensitive conductive metal oxide modified vanadium dioxides. 3,542,697, 11-24-70, Cl. 252-518.
Chamberlin, Alexander R., to Microbiological Instruments, Inc. Method and apparatus for automatically opening, filling and closing receptacles with telescoping covers. 3,513,621, 5-26-70, Cl. 53-37.
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Chamberlin, Earl M.; Harris, Elbert E.; and Zabriskie, John L., Jr., to Merck & Co., Inc.Certain 1,3-dioxepino-[5,6-c]-pyridines. 3,525,749, 8-25-70, Cl. 260-294.8
Chamberlin, Francis W., deceased (by First National Bank of Madison, The; executor), to Varigraph, Inc. One table duplicate bridge. 3,550,944, 12-29-70, Cl. 273-149.
Chamberlin, James W., to Lilly, Eli, and Company. Novel amino acid protecting group. 3,532,736, 10-6-70, Cl. 260-471.
Chamberlin, John B.; and Noth, Richard W., to International Business Machines Corporation. Gelation coating method for electronic circuit panels. 3,515,585, 6-2-70, Cl. 117-212.
Chamberlin, Leo A., Jr.; and Edwards, Dale E., to Texas Instruments, Incorporated. Method and system for measuring and indicating the frequency and phase differences between plurality of precision frequency sources. 3,502,976, 3-24-70, Cl. 324-82.
Chamberlin, Rhodes R., to National Cash Register Company, The. Contactless potentiometer using rotatable slitted cylinder. 3,539,816, 11-10-70, Cl. 250-211.

Chamberlin, Thomas A.; and Kochanny, Gerald L., Jr., to Dow Chemical Company, The. Synthesis of 1,1,1-trichloroethane using ionizing radiation. 3,537,968, 11-3-70, Cl. 204-163.
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Chambers, Charles W., Jr. Party line privacy device. 3,514,544, 5-26-70, Cl. 179-17.
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Chambers, Dale T., to Chrysler Corporation. Refrigeration apparatus with means to increase liquid refrigerant pressure. 3,529,433, 9-22-70, Cl. 62-196.
Chambers, Edgar M., 1/2 to Schlesinger, Hymen. Marine securance means for towboats and the like. 3,515,090, 6-2-70, Cl. 114-235.
Chambers, Everett E.; and Steinhards, Arnolds, to Upjohn Company, The. Synergistic combination of herbicides-N,N- disubstituted-α,α-diphenylacetamide (diphenamid) and a 2-(4-chloro-2-methylphenoxy) propionanilide. 3,535,102, 10-20-70, Cl. 71-118.
Chambers, Geoffrey Prytherch Campbell; and Damm, Michael Robert, to Berk Limited. Manufacture of calcium sulphate hemihydrate. 3,520,708, 7-14-70, Cl. 106-110.
Chambers, Gilbert V., to Esso Research and Engineering Company. Mosquito control oil. 3,496,279, 2-17-70, Cl. 424-356.
Chambers, Gilbert V. Promoted mosquito control oil with polyethoxylated 2,4-dinonyl phenol and method of using it. 3,499,969, 3-10-70, Cl. 424-341.
Chambers, Henry B., to Hydronautics, Inc. Motion takeup device. 3,512,657, 5-19-70, Cl. 214-1.
Chambers, John. Forced convection surface evaporator. 3,509,932, 5-5-70, Cl. 159-2.
Chambers, Robert F. Apparatus for classroom physics experiments. 3,520,981, 7-21-70, Cl. 35-19.
Chambers, Robert F. Arrangement for constructing electrical circuits by means of board mounted connector plates. 3,548,261, 12-15-70, Cl. 317-117.
Chambers, Robert O.; and Windish, Willis E., to Caterpillar Tractor Company. High speed tractor transmission. 3,535,954, 10-27-70, Cl. 74-220.5
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Chambers, Vaughan C., Jr., to Du Pont de Nemours, E. I., and Company. Photopolymerization processes and elements thereof. 3,525,615, 8-25-70, Cl. 96-28.
Chambers, William A.; and Prince, Paul R., to Hughes Aircraft Company. Adaptive target tracking system. 3,541,249, 11-17-70, Cl. 178-6.8
Chambers, William Alexander, to Continental Can Company, Inc. Quick change holder for a blow needle. 3,513,502, 5-26-70, Cl. 18-5.
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Chambers, William W., to Robertshaw Controls Company. Bridge circuit temperature control system. 3,489,881, 1-13-70, Cl. 219-499.
Chambers, William W., to Robertshaw Controls Company. Rapid opening time-delay relay. 3,501,718, 3-17-70, Cl. 335-66.
Chambers, William W., to Robertshaw Controls Company. Temperature control system for heating and cooling apparatus. 3,516,484, 6-23-70, Cl. 165-26.
Chambers, William W., to Robertshaw Controls Company. Heat coupled control system. 3,543,840, 12-1-70, Cl. 165-39.
Chambers, Willie B., to Eelco Mfg. & Supply Company. Spark advance adjustment device. 3,511,945, 5-12-70, Cl. 200-31.
Chambers, Worthy L., to Sunbeam Corporation. Trigger switch for electric appliance. 3,549,844, 12-22-70, Cl. 200-157.
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Chambert, Lars Axel Andreas, to AB Svenska Maskinverken. Method for starting steam power plants. 3,532,079, 10-6-70, Cl. 122-406.
Chambet-Falquet, Antoine Jean Louis; Le Gall, Alain Pierre; and Yelloz, Raphael Guy, to International Standard Electric Corporation. Word organized memory comprising flip-flops with reset means associated with each flip-flop in the form of a clearing line generator coupled to the emitter of one of the transistors of the flip-flop. 3,503,051, 3-24-70, Cl. 340-173.
Chambon, Louis Jean, to Societe d'Etudes de Machines Speciales, Societe Anonyme. Detachable mandrel shaft for winders and unwinders. 3,539,128, 11-10-70, Cl. 242-72.1
Chambon, Louis Jean, to Societe d'Etudes de Machines Speciales Societe Anonyme. Devices for automatically setting a printing cylinder of a rotary press. 3,540,372, 11-17-70, Cl. 101-92.
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Chambon, Rene, to Scovill Manufacturing Company. Convertible cooking device with sloping splt. 3,535,999, 10-27-70, Cl. 99-340.
Chambran, Jacquea, to Pechiney-Compagnie de Produits Chimiques et Electrometallurgiques. Device for casting small ingots with endless belt providing temporary mold side wall. 3,491,828, 1-27-70, Cl. 164-326.
Chambran, Jacques, to Pechiney-Compagnie de Produits Chimiques et Electrometallurgiques. Machine for casting and stacking ingots. 3,498,364, 3-3-70, Cl. 164-269.
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Champ, Antony E., to Celanese Corporation. Stabilized polyamides containing soluble copper and a halogenated methane derivative. 3,527,731, 9-8-70, Cl. 260-45.75
Champagne, Harry J. Spreader for conveyor. 3,506,205, 4-14-70, Cl. 241-283.
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Champion, William C., Jr.; and Farber, Elliott, to Tenneco Chemicals, Inc. Flooring composition. 3,546,158, 12-8-70, Cl. 260-41.
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Champoux, Louis A., to Boeing Company, The. Metal working and metal cutting lubrication medium and process. 3,493,506, 2-3-70, Cl. 252-31.
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Chan, John Y. S. Food handling apparatus. 3,503,346, 3-31-70, Cl. 108-22.
Chan, John Y. S. Apparatus for drawing blood. 3,528,404, 9-15-70, Cl. 128-2.
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Chan, Yum T., to Hughes Aircraft Company. Crystal oscillator temperature compensating circuit. 3,508,168, 4-21-70, Cl. 331-116.
Chana, Howard E., to General Motors Corporation. Friction drive with automatic pressure modulating valve. 3,532,200, 10-6-70, Cl. 192-109.
Chana, Howard E., to General Motors Corporation. Transmission output shaft brake mechanism. 3,539,039, 11-10-70, Cl. 192-4.
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Chance, Leon H., to United States of America, Agriculture. Bis(sulfatomethyl)phosphinic acid. 3,494,720, 2-10-70, Cl. 8-120.

Chance, Leon H.; Daigle, Donald J.; and Drake, George L., Jr., to United States of America, Agriculture. Crosslinking cotton with haloalkyl phosphine oxides. 3,535,073, 10-20-70, Cl. 8-120.

Chance, William Ernest, to Cheney, C. W., & Son Limited. Locks for suitcases and like articles of luggage. 3,523,436, 8-11-70, Cl. 70-75.

Chancellor Chair Company: *See*—
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Chancellor, Charles W., Jr., to Chancellor Chair Company. Cuff link and bracelet assembly. 8, 71,282, 7-14-70, Cl. 2-123.

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Chandler & Price Company, The: *See*—
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Chandler, Alanson W. Automatic dead weight pressure gauge. 3,545,278, 12-8-70, Cl. 73-419.

Chandler, David Horace, to Marconi Company Limited, The. Radar display correcting arrangements. 3,523,293, 8-4-70, Cl. 343-5.

Chandler, David Horace; and Dawson, Leslie Howard, to Marconi Company Limtied, The. Electro-magnetic deflection coil arrangements for cathode ray tubes. 3,488,552, 1-6-70, Cl. 315-27.

Chandler, Edmond A.; Pearsall, Ralph E.; Winslow, Kenelm W.; and Yarrison, Walter W., to United Shoe Machinery Corporation. Shoemaking by molding with an adhesive. 3,522,343, 7-28-70, Cl. 264-25.

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Chandler, Herman R. Thermal pressure relief device. 3,517,683, 6-30-70, Cl. 137-74.

Chandler, Horace W., to Isomet Corporation. Method for growing crystals. 3,489,665, 1-13-70, Cl. 204-180.

Chandler, Horace W., to Isomet Corporation. Method of growing large single crystals. 3,502,556, 3-24-70, Cl. 204-180.

Chandler, Jack L.: *See*—
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Chandler, John W., to Hempel's Marine Paints, Inc., mesne. Cathodic protective coatings of metal powder and titanate ester-orthosilicate polymer based vehicle. 3,546,155, 12-8-70, Cl. 260-37.

Chandler, Joseph A.; and Grubbs, Thomas M., to United States of America, National Aeronautics and Space Administration. Winch having cable position and load indicators. 3,545,725, 12-8-70, Cl. 254-150.

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Chandley, Edwin Fenton; Leigh, Hugh Wallis; and Lowe, Arnold John, to Lankro Chemical Limited. Polyurethane foams and their method of preparation using stannous salts of aliphatic acids and beta- hydroxy amines as catalysts. 3,520,835, 7-21-70, Cl. 260-2.5

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Chandos, Laurance Robert. Compact amusement game for travelers. 3,495,700, 2-17-70, Cl. 206-45.33

Chandos, Laurance Robert. Economical asportable amusement device. 3,495,701, 2-17-70, Cl. 206-45.33

Chandos, Robert E., to Electro-Optical Industries, Inc. Digital wave analyser having sequentially scanned, substantially identical, low pass filters. 3,519,926, 7-7-70, Cl. 324-77.

Chane, Verne E., Jr. Cleansing packet and dispensing container therefor. 3,533,533, 10-13-70, Cl. 221-25.

Chaney, Alan; and Perry, David H., to Xerox Corporation. Imaging system. 3,487,775, 1-6-70, Cl. 101-114.

Chaney, Donal W.: *See*—
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Chaney, John E.: *See*—
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Chaney, Preston E.: *See*—
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Chaney, Preston E., to Sun Oil Company. Offshore drilling and production structure. 3,535,884, 10-27-70, Cl. 61-46.5

Chang, Catherine Teh-lin; and Fan, Roxy Ni, to Du Pont de Nemours, E. I., and Company. Photopolymerizable compositions containing triarylimidazolyl dimers and p-aminophenyl ketones. 3,549,367, 12-22-70, Cl. 96-35.1

Chang, Chen-Kuo, to Westinghouse Electric Corporation. Flexible commutator bushing. 3,546,509, 12-8-70, Cl. 310-236.

Chang, Clarence D.: *See*—
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Chang, David C., to International Business machines Corporation. Bi-directional capacitive load driver. 3,492,502, 1-27-70, Cl. 307-246.

Chang, David C., to International Business Machines Corporation. Electro-optic light beam control for displaying and printing. 3,532,033, 10-6-70, Cl. 95-4.5

Chang, David C.; and Lipp, James, to International Business Machines Corporation. D-C free electro-optic crystal system. 3,512,865, 5-19-70, Cl. 350-150.

Chang, David T. L., to Ampex Corporation. Single-edge trough tape guide. 3,501,078, 3-17-70, Cl. 226-198.

Chang, Edward H., to Fremont Industries, Inc. Spray cleaning method for removing oil, grease, dirt and embedded oxides from painted surfaces. 3,494,795, 2-10-70, Cl. 134-40.

Chang, Eugene Yue Chieh: *See*—
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Chang, Eugene Yue; and Kaizerman, Samuel, to American Cyanamid Company. Thermoplastic polyurethane elastomers. 3,503,927, 3-31-70, Cl. 260-47.

Chang, Fu-Shueng, to Ford Motor Company. Vehicle roll-over protection device. 3,508,785, 4-28-70, Cl. 296-76.

Chang, Henry M.: *See*—
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Chang, Hsu; and Thompson, David A., to International Business Machines Corporation. Magnetic memory element with variable exchange coupling. 3,488,167, 1-6-70, Cl. 29-196.1

Chang, Hung Chi; Campbell, Robert B.; and Crull, Marvin L., to Westinghouse Electric Corporation. Silicon carbide solid state ultraviolet radiation detector. 3,504,181, 3-31-70, Cl. 250-83.3

Chang, Irving B., to Allied Chemical Corporation. Water insoluble amine containing bitumen emulsions. 3,497,371, 2-24-70, Cl. 106-277.

Chang, Kern K.N., to RCA Corporation. Integrated semiconductor structure with frequency selective transmission line sections. 3,513,403, 5-19-70, Cl. 330-4.9

Chang, Kyo Y.: *See*—
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Chang, Martin Ming Yang: *See*—
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Chang, Nai-Chong; Blazek, Henry; and Xenakis, James, to Sperry Rand Corporation. Rate gyro utilizing elastic constraint. 3,487,701, 1-6-70, Cl. 74-5.

Chang, Nai-Chong; Xenakis, James A.; and Levine, Melvin, to Sperry Rand Corporation. Rotating case gyroscope. 3,540,295, 11-17-70, Cl. 74-5.12

Chang, Nai-Chong: *See*—
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Zechnowitz, Alvin L.; and Chang, Nai-Chong,3,540,288.

Chang, Paul T.: *See*—
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Chang, Richard Shih-Teng. Mattel, Inc. Phonograph toy having an improved speaker cone. 3,547,448, 12-15-70, Cl. 274-7.

Chang, Richard Shih-Teng; Megga, Daniel H.; and Ryan, John W., to Mattel, Inc. Toy gun with means for controlling the trajectory of its projectile. 3,521,616, 7-28-70, Cl. 124-15.

Chang, Richard Shih-Teng: *See*—
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Chang, Richard Shis-Teng; Landsinger, Edmund E.; and Ryan, John W., to Mattel, Inc. Integral governor for electric motor. 3,532,914, 10-6-70, Cl. 310-240.

Chang, Robert W. H.; Banitt, Elden H.; and Joos, Richard W., to Minnesota Mining and Manufacturing Company. Fluoroalkoxyalkyl 2-cyanoacrylate compositions used in tooth treatment. 3,540,126, 11-17-70, Cl. 32-15.

Chang, Robert W., to Bell Telephone Laboratories, Incorporated. Orthogonal frequency multiplex data transmission system. 3,488,445, 1-6-70, Cl. 179-15.

Chang, Robert W., to Bell Telephone Laboratories, Incorporated. Block precoding for multiple speed data transmission. 3,522,383, 7-28-70, Cl. 179-15.55

Chang, Robert W., to Bell Telephone Laboratories, Incorporated. Digital frequency comparator. 3,543,177, 11-24-70, Cl. 331-25.

Chang, Thomas M.S., to Research Corporation. Nonthrombogenic microcapsules. 3,522,346, 7-28-70, Cl. 424-35.

Chang, Yi-Chung, to United States Steel Corporation. Apparatus for controlling the flow of a fluid material. 3,495,741, 2-17-70, Cl. 222-193.

Chang, Yi-Chung, to United States Steel Corporation. Method and apparatus for measuring effluent gas flow rate. 3,545,270, 12-8-70, Cl. 73-194.

Chang, Yi Chung, to United States Steel Corporation. Apparatus for determining travel time of moving material. 3,545,528, 12-8-70, Cl. 164-154.

Chang, Yi-Chung: *See*—
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Chant, Leonard H., to General Motors Corporation. Tractor loader. 3,529,740, 9-22-70, Cl. 214-774.

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Chantrey, Graham: *See*—
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Chao, Tai S., to Sinclair Research, Inc. Liquid ester base oil lubricating compositions of high temperature oxidative resistance. 3,493,510, 2-3-70, Cl. 252-51.5

Chao, Tai S.; and Kjonaas, Manley, to Sinclair Research, Inc. High temperature synthetic ester base lubricant composition blends with liquid diesters of dihydroxy biphenyls. 3,510,431, 5-5-70, Cl. 252-57.

Chao, Tai S.; and Kjonaas, Manley, to Sinclair Oil Corporation. Stable synthetic ester lubricant compositions. 3,535,243, 10-20-70, Cl. 252-51.5

Chao, Tai S.; Kjonaas, Manley; and Hoffman, William D., to Sinclair Research Inc. Lubricating oil ester base composition containing liquid esters of neoalkyl polyols and neoalkyl fatty acids. 3,523,084, 8-4-70, Cl. 252-56.

Chao, Tsai Hsiang, to American Cyanamid Company. Durable resinous antistatic textile finish. 3,503,795, 3-31-70, Cl. 117-139.5

Chao, Tsai Hsiang, to American Cyanamid Company. Process for providing a durable antistatic finish for synthetic textile materials. 3,522,195, 7-28-70, Cl. 260-2.

Chao, Wu Wai; Stephan, Robert W.; and Zoya, Walter J., to Sperry Rand Corporation. Power transmission. 3,499,391, 3-10-70, Cl. 103-162.

Chaparro, John J., to Delta Design, Inc. Comparator with bridge for sensing and affecting conditions. 3,488,757, 1-6-70, Cl. 323-70.

Chapelle, Walter E.; Kamm, Vernon C.; and Whiteside, Arliss E. Automatic stereoplatter. 3,548,210, 12-15-70, Cl. 250-202.

Chapin, Donald W., to Garrett Corporation, The. Fluid amplifier. 3,533,427, 10-13-70, Cl. 137-81.5

Chapin, Donald W., to Garrett Corporation, The. Fluidic multiplier. 3,537,466, 11-3-70, Cl. 137-81.5

Chaplenko, George, to Spex Industries, Incorporated. Grinding and mixing vibrator. 3,534,914, 10-20-70, Cl. 241-66.

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Chaplin, Merle P. Method of removing marine growths and roots. 3,540,194, 11-17-70, Cl. 56-1.

Chaplin, Merle P. Harvesting marine growths. 3,546,858, 12-15-70, Cl. 56-9.

Chapman, Arthur S., to Hughes Aircraft Company. Sighting interlock. 3,545,837, 12-8-70, Cl. 350-83.

Chapman, Carl P.: *See*—
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Chapman, Charles C., to Phillips Petroleum Company. Recycling acid streams to different alkylation reactions. 3,544,651, 12-1-70, Cl. 260-683.45

Chapman, Charles W., Jr.: *See*—
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Chapman, Charles Wallace, to Twiflex Couplings Limited. Rotatable couplings. 3,528,264, 9-15-70, Cl. 64-19.

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Chapman, Dave, Goldsmith and Yamasaki Inc.: *See*—
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Chapman, Derek D.: *See*—
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Chapman, Donald Frederick: *See*—
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Chapman, Edwin H. Ladder stand. 3,511,338, 5-12-70, Cl. 182-121.

Chapman, Elden G., to Electric Piano, Inc. Electromagnetic piano. 3,530,756, 9-29-70, Cl. 84-1.15

Chapman, Everett. Temperature control apparatus. 3,519,204, 7-7-70, Cl. 236-70.

Chapman, Frederic F.; and Hill, Daniel, to Runnion, Ernest E. Cutter-head structure. 3,487,865, 1-6-70, Cl. 144-229.

Chapman, George C., to Owens-Illinois, Inc. Glass tube forming apparatus. 3,523,782, 8-11-70, Cl. 65-184.

Chapman, Ian D.; and Elmer, Thomas H., to Corning Glass Works. Porous glass catalysts. 3,513,106, 5-19-70, Cl. 252-432.

Chapman, James E., to Garrett Corporation, The. Fuel injector for internal combustion engines. 3,498,274, 3-3-70, Cl. 123-119.

Chapman, John H.; and Partridge, Padraic, to Georgia Kaolin Company. Clay treatment. 3,489,586, 1-13-70, Cl. 106-288.

Chapman, Joseph E., III, to Schlumberger Technology Corporation. Sonic borehole televiewer apparatus. 3,502,169, 3-24-70, Cl. 181-0.5

Chapman, Joseph E., III, to Schlumberger Technology Corporation. Acoustic well-logging apparatus. 3,504,757, 4-7-70, Cl. 181-0.5

Chapman, Mac C., to Northrop Corporation. Radiation dosimeter having cell size scintillators. 3,536,914, 10-27-70, Cl. 250-71.5

Chapman, Richard D.; and Crovatt, Lawrence W., Jr., to Monsanto Company. Synthetic linear polycarbonamides having an improved receptivity for acid dyes. 3,530,099, 9-22-70, Cl. 260-78.

Chapman, Richard M., to Bell, F. W., Inc. Hall effect device configurations for extended frequency range. 3,551,706, 12-29-70, Cl. 307-309.

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Chapman, Robert L.; and Gofman, John W. Chest mounted heart tachycardia detector. 3,547,107, 12-15-70, Cl. 128-2.06

Chapman, Rodney M.; and Privott, Wilbur J., Jr., to Monsanto Company. Self-crimping filament process. 3,497,585, 2-24-70, Cl. 264-171.

Chapman, Ronald H., to Motorola, Inc. Line current sensing circuit. 3,533,070, 10-6-70, Cl. 340-172.

Chapman, Sidney John; and Penny, Roland Charles, to Massey-Ferguson Services N.V. Cutter bar assembly. 3,490,215, 1-20-70, Cl. 56-298.

Chapman, Stephen H., to International Telephone and Telegraph Corporation. Two relay line circuit. 3,529,098, 9-15-70, Cl. 179-19.

Chapman, Stephen H. Electronic key telephone. 3,551,606, 12-29-70, Cl. 179-99.

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Chapman, Victor Audley, Jr., to Stauffer Chemical Company. Method of agglomerating finely divided bauxite. 3,520,830, 7-21-70, Cl. 252-463.

Chapman, William D., to Baker Perkins Inc. Vertical mixer, kneader and reactor for plastic materials and the like. 3,550,201, 12-29-70, Cl. 18-12.

Chapman, William I., to Ford Motor Company. Multiple speed ratio power transmission mechanism for gas turbine engine drivelines. 3,496,785, 2-24-70, Cl. 74-354.

Chapman, William P.; and Smith, Carleton C., to Johnson Service Company. Binary logic coded control. 3,529,176, 9-15-70, Cl. 307-218.

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Chappell, Robert E. Telephone alarm device. 3,510,593, 5-5-70, Cl. 179-5.

Chappell, Sterling F., III; Olechowski, Jerome R.; and Arseneaux, Arthur A., to Columbian Carbon Company. Nickel complex catalyst compositions. 3,490,745, 1-20-70, Cl. 252-430.

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Chappex, Jean-Michel. Control mechanism for the Jacquard device of a rectilineal knitting machine. 3,514,975, 6-2-70, Cl. 66-75.

Chapron, Yves; Faltot, Genevieve; and Francois, Henri, to Commissariat a l'Energie Atomique. Method for the instantaneous quantitative analysis of ozone. 3,494,838, 2-10-70, Cl. 204-1.

Chaptal de Chanteloup, Victor M., to Societe Industrielle Bull-General Electric (Societe Anonyme). Device for changing the self-inductance of an electric circuit. 3,509,498, 4-28-70, Cl. 333-31.

Chaptal de Chanteloup, Victor, to CSF-Compagnie Generale de Telegraphie Sans Fil. Laminated layer ferromagnetic memory and logical circuit elements. 3,518,641, 6-30-70, Cl. 340-174.

Chapuis, Henri. Rotary air compressor. 3,542,497, 11-24-70, Cl. 418-84.

Chapuis, Jacques. Encapsulated synthetic liquid detergent and process for preparing the same. 3,528,925, 9-15-70, Cl. 252-161.

Chapuis, Jacques. Article of manufacture. 3,541,620, 11-24-70, Cl. 5-343.

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Charbonnier, Jean-Claude; and Goue, Bernard, to Compagnie Generale d'Electricite. Fuel cell with aqueous ethylene diamine electrolyte solution. 3,547,699, 12-15-70, Cl. 136-86.

Charbonnier, Roger Charles, to Adret Electronique S.A. Electric signal generator with accurately controllable phase-settings. 3,528,027, 9-8-70, Cl. 331-30.

Charcharos, Anthreas Nicholas; and Taylor, Peter Anthony. Heat exchangers. 3,504,737, 4-7-70, Cl. 165-107.

Chard, John H., to Pack-Co., Inc. Pattern projection for skin-packaging. 3,512,334, 5-19-70, Cl. 53-112.

Charest, Andre. Mechanical driving and steering system for tracked vehicles. 3,530,741, 9-29-70, Cl. 74-675.

Charette, Omer. Can opener having drip collecting means. 3,517,440, 6-30-70, Cl. 30-5.5

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Charland, Telesphore L.; Neal, Jacoson S.; and Weissmann, Theodore S., to Teledyne, Inc., mesne. Thermoelectric assembly. 3,510,362, 5-5-70, Cl. 136-202.

Charlap, E. Paul; Baumgarten, Fritz; and Fischer, Lothar, to Savin Business Machines Corporation. Electrostatic copier. 3,490,843, 1-20-70, Cl. 355-14.

Charle, Roger; Kalopissis, Gregoire; and Gascon, Jean, to Societe Anonyme dite, l'Oreal. Hair dyeing with couplers and a 1-amino-4-substituted -alkylamino-benzene. 3,506,389, 4-14-70, Cl. 8-10.2

Charles, Asa Franklin, to ACF Industries, Incorporated. Side sill structure for railway flat car. 3,540,384, 11-17-70, Cl. 105-418.

Charles, Charles W.: *See—*
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Charles, Richard J.; and Jorgensen, Paul J., to General Electric Company. Ceramic-metal bonding composition and composite article of manufacture. 3,545,639, 12-8-70, Cl. 220-2.3

Charles, Robert Lemoyne; Gertzman, Donald Paul; and Melachouris, Nicholas, to Miles Laboratories, Inc. Milk-clotting enzyme product and process therefor. 3,549,390, 12-22-70, Cl. 99-116.

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Charlson, Lynn L., to Germane Corporation. Fluid operated motor. 3,532,447, 10-6-70, Cl. 418-61.

Charlson, Lynn L., to Germane Corporation. Fluid operated motor. 3,547,563, 12-15-70, Cl. 418-61.

Charlson, Lynn L., to Germane Corporation. Fluid operated motor. 3,547,564, 12-15-70, Cl. 418-61.

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Clark, Duncan; Hayden, Percy; and Charlton, John,3,536,751.

Charlton, Peter, to Canada, Her Majesty the Queen of, as represented by the Minister of National Defence. Horizon indicators for assisting helicopter landings on ships. 3,516,375, 6-23-70, Cl. 114-43.5

Charlton, Richard J., to International Business Machines Corporation. Container with external shock absorbing structure. 3,543,922, 12-1-70, Cl. 206-62.

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Charlwood, Reginald E.; and Risberg, Robert L., to Cutler-Hammer, Inc. Current regulated speed control system for wound rotor A.C motors. 3,519,912, 7-7-70, Cl. 318-237.

Charman, Hugh Bernard, to Imperial Chemical Industries Limited. Oxidation of organic compounds. 3,549,713, 12-22-70, Cl. 260-621.

Charmasson, Rene Casimir Auguste. Osmometer. 3,518,875, 7-7-70, Cl. 73-64.3

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Charnley, John. Clothing to protect the environment from contamination. 3,529,594, 9-22-70, Cl. 128-139.

Charpentier, Jean F..M.L. Mechanical transmission. 3,526,148, 9-1-70, Cl. 74-114.

Charpentier, Roger L., to Societe Anonyme dite: Le Panneau Magnetique L.P.M. Acoustic panels. 3,498,405, 3-3-70, Cl. 181-33.

Charpentier, Roger. Magnetic panel supporting and securing devices. 3,522,923, 8-4-70, Cl. 248-206.

Charrault, Jean Claude; LaFontaine, Francois; and Orlowski, Serge, to European Atomic Energy Community (Euratom). Assembly of fuel elements for nuclear reactors. 3,520,776, 7-14-70, Cl. 176-51.

Charrier, George O., to Procter & Gamble Company, The. Container dividers having improved stacking strength. 3,549,007, 12-22-70, Cl. 206-65.

Charrier, George O.; and Clement, Finn, to Procter & Gamble Company, The. Dispensing valve mechanism. 3,498,506, 3-3-70, Cl. 222-402.12

Charrier, George O.; and Fischer, John W. Orthodontic method. 3,490,145, 1-20-70, Cl. 32-14.

Charrin, Jean-Jacques; and Frechet, Pierre Joseph, to Rhone-Poulenc S.A. Apparatus for bringing pulverulent solid materials into contact with gaseous materials. 3,507,061, 4-21-70, Cl. 34-171.

Charrin, Jean Pierre; Hermier, Jacques; and Lalande, Michel George E., to La Telemecanique Electrique. D.C.-A.C. converters. 3,500,170, 3-10-70, Cl. 321-45.

Charron, Charles A., to Rochester Paper Company, mesne. Oil filter paper including phenolic resin and chrome oxide and method for making same. 3,539,446, 11-10-70, Cl. 162-146.

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Charters, John Dumergue. Back support. 3,543,748, 12-1-70, Cl. 128-78.

Chartet, Andre, to Societe Anonyme des Usines Chausson. Process and device for cutting thin elements such as tubes for radiators into parts of equal length. 3,528,329, 9-15-70, Cl. 83-37.

Chartier, Andre Maurice, to R.D.T. Societe Pour l'Etude la Realisation et la. Machine for the manufacture of fibre-glass tubing. 3,527,636, 9-8-70, Cl. 156-425.

Chartouni, Elie S.; and Dawe, Garfield A., to Sargent-Welch Scientific Company, mesne. Titration recording apparatus. 3,489,520, 1-13-70, Cl. 23-253.

Chartrand, Armand J.; and LaBoda, Mitchell A., to General Motors Corporation. Electrochemical machining electrolyte for zinc. 3,539,487, 11-10-70, Cl. 204-143.

Charvat, Vernon K., to Sherwin-Williams Company, The. Rotary brushing tool containing non-woven fibrous material. 3,529,945, 9-22-70, Cl. 51-295.

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Chauvette, Robert R.; and Flynn, Edwin H., to Lilly, Eli, and Company. Simplified method for esterification of antibiotics via carbonate anhydride intermediates. 3,536,698, 10-27-70, Cl. 260-239.1

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Chu, Richard C.; Hwang, Un-Pah; and Seely, John H., to International Business Machines Corporation. Immersion cooling system for modularly packaged components. 3,512,582, 5-19-70, Cl. 165-105.

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Church, Charles H.; and Frost, Leslie S., to Westinghouse Electric Corporation. Rotating electrode and gas arc heater employing the same. 3,549,943, 12-22-70, Cl. 315-111.

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Church, Peter Dudley, to English Electric Computers Limited. Self-loading fluid bearing support means for data recording-sensing heads. 3,488,648, 1-6-70, Cl. 340-174.1

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Church, Robert John, to Du Pont de Nemours, E. I., and Company. Stable fertilizer ammoniating solution and method of making said solution. 3,515,533, 6-2-70, Cl. 71-30.

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Chynoweth, Alan G.; and Feldmann, William L., to Bell Telephone Laboratories, Incorporated. High speed light switch. 3,518,659, 6-30-70, Cl. 340-347.

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Burke, Frederick A.; and Long, Douglas A., 3,532,254.
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Clamp, Melvin; and Karcher, Ralph E., Jr., to USM Corporation. Apparatus for treating plastic with heat and pressure. 3,503,827, 3-31-70, Cl. 156-380.

Clampitt, Bert H.: *See—*
Alexander, Richard L.; Ashburn, Donald G.; Clampitt, Bert H.; and Anspon, Harry D.,3,544,490.
Anspon, Harry D.; and Clampitt, Bert H.,3,509,084.
Gilbert, Ronald E.; Clampitt, Bert H.; and Anspon, Harry D.,3,520,955.

Clampitt, Bert H., to Gulf Research & Development Company. Stable aqueous dispersions of ethylene polymers. 3,511,799, 5-12-70, Cl. 260-29.6
Kochhar, Rajindar K.; Anspon, Harry D.; and Clampitt, Bert H.,3,539,665.

Clampitt, Richard L., to Phillips Petroleum Company. Conversion of oil shale retorting gases. 3,551,322, 12-29-70, Cl. 208-11.

Clanan, Wayne N. Elevator for invalids. 3,541,617, 11-24-70, Cl. 5-81.

Clancy, Douglas E.; Hobgood, George W., Jr.; and May, Frederick T., to International Business Machines Corporation. Data reading, recording, and positioning system. 3,530,448, 9-22-70, Cl. 340-174.1

Clanin, William B. Pipe cutting apparatus. 3,514,086, 5-26-70, Cl. 266-23.

Clapham, Harry Foster, to Du Pont de Nemours, E. I., and Company. Process for dyeing and printing anionic polymeric fibers. 3,504,997, 4-7-70, Cl. 8-21.

Clapp, Charles W.: *See—*
Duston, David K.; and Clapp, Charles W.,3,538,298.

Clapp, Clarence P., to Aerosol Techniques Research Center, Incorporated. Method of making a dispensing valve for a pressurized container. 3,529,338, 9-22-70, Cl. 29-157.1

Clapp, Clarence P., to Aerosol Techniques Research Center Incorporated. System for filling internally pressurized dispensing container. 3,545,162, 12-8-70, Cl. 53-22.

Clapp, Clarence; and Follmer, Dan W., to Aerosol Techniques Incorporated. Chemiluminescent aerosols. 3,494,871; 2-10-70, Cl. 252-188.3

Clapp, Gary D.; Macreno, Fred, Jr.; and Willis, Donald R., to United States of America, Navy. Plural frequency command encoder system utilizing a matrix selector and linear mixer. 3,495,219, 2-10-70, Cl. 340-171.

Clapp, Gary D.; Riggin, Lance E.; and Willis, Donald R., to United States of America, Navy. Video synchronizing pulse detection means. 3,527,887, 9-8-70, Cl. 178-7.3

Clapp, Gary D.; Riggin, Lance E.; and Willis, Donald R., to United States of America, Navy. Means for separating horizontal and vertical video synchronizing pulses. 3,527,888, 9-8-70, Cl. 178-7.5

Clapp, James Wellington; Lies, Thomas Andrew; and Lamb, Glentworth, to American Cyanamid Company. Certain 5-dialkylamino-1,2,4-dithiazole-3-ones and-3-thiones and preparation. 3,520,897, 7-21-70, Cl. 260-306.7

Clapp, James, to Sunny Mead Farms, Inc. Device for sealing the ends of flexible film. 3,546,764, 12-15-70, Cl. 29-200.

Clapp, John M., to Ingersoll-Rand Company. Torque release and shutoff device for rotary tools. 3,515,251, 6-2-70, Cl. 192-150.

Clapp, John M.; and Urda, Paul, to Ingersoll-Rand Company. Power operated drill. 3,546,976, 12-15-70, Cl. 77-7.

Clapp, O. H., & Co., Inc.: *See—*
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Clapp, Robert L.: *See—*
West, Gaylon L.; Forster, Robert H.; Quist, Donald G.; and Clapp, Robert L.,3,504,632.

Clapp, Roy A. Illumination control during color printing. 3,516,740, 6-23-70, Cl. 355-36.

Clapper, Genung L., to International Business Machines Corporation. Speech analyzing system. 3,499,990, 3-10-70, Cl. 179-1.

Clapper, Genung L., to International Business Machines Corporation. Parallel binary to parallel binary coded decimal converter. 3,526,759, 9-1-70, Cl. 235-155.

Clapper, Genung L., to International Business Machines Corporation. Adaptive logic system utilizing modification of output feedback in conditioning control loop. 3,533,072, 10-6-70, Cl. 340-172.5

Clapper, Genung L., to International Business Machines Corporation. Multiple input binary adder. 3,535,502, 10-20-70, Cl. 235-174.

Clapper, Genung L., to International Business Machines Corporation. Adaptive template pattern categorizing system. 3,539,994, 11-10-70, Cl. 340-146.3

Clapper, Genung L., to International Business Machines Corporation. Content addressable memory. 3,540,002, 11-17-70, Cl. 340-172.5

Clapper, Thomas W.; and Behrens, Ralph E., to American Potash & Chemical Corporation, mesne. Electrolytic cell with anodes secured to it's cover. 3,497,446, 2-24-70, Cl. 204-242.

Clar, Milton, to Auto Pak Company. Hydraulically driven compaction apparatus with improved electric control circuit. 3,534,678, 10-20-70, Cl. 100-50.

Clar, Milton, to Auto Pak Company. Apparatus for compacting material into drums or bags. 3,541,949, 11-24-70, Cl. 100-49.

Clar, Milton, to Auto Pak Company. Dual-cylinder compaction apparatus. 3,541,952, 11-24-70, Cl. 100-229.

Clar, Philip L., to Motorola, Inc. Microstrip-microwave coupler. 3,512,110, 5-12-70, Cl. 333-10.

Clar, Roland, to Hahn & Kolb. Dual-disc lapping machine. 3,541,734, 11-24-70, Cl. 51-111.

Clardy, Edwin K., to Phillips Petroleum Company. Flame ionization detection. 3,542,516, 11-24-70, Cl. 23-232.

Clardy, Edwin K.; and Messinger, Alfons, to Phillips Petroleum Company. Combustible gas detection in containers. 3,489,523, 1-13-70, Cl. 23-232.

Clare, C. P., & Company: *See—*
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Claridge, Elmond L.; and Prats, Michael, to Shell Oil Company. Method of metal coating and electrically heating a subterranean earth formation. 3,547,192, 12-15-70, Cl. 166-248.

Clark & Vicario Corporation: *See—*
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Shaver, James D., 3,517,434.

Clark Adams Corporation: *See—*
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Clark, Adrian P., to British Telecommunications Research Limited. Frequency and time division multiplex signalling systems using successive changes of frequency band and time slot. 3,499,995, 3-10-70, Cl. 179-15.

Clark, Alexander S.: *See—*
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Clark, Alexander. Dental impression tray, primarily for posterior teeth. 3,501,837, 3-24-70, Cl. 32-17.

Clark, Alfred P.: *See—*
Abrahamson Stephen; Denson, Judson S.; Clark, Alfred P.; Taback, Leonard; and Ronzoni, Pullio,3,520,071.

Clark, Archer D., to Ford Motor Company. Method of assembling an electrically conductive member to an electrically non-conducting member. 3,514,573, 5-26-70, Cl. 219-150.5

Clark, Bruce E. Hydrofoil stabilizer for boat hull. 3,520,267, 7-14-70, Cl. 114-126.

Clark, Charles C.; and Krawczyk, Arthur J., to Textron Inc. Fire retardant polyurethane coating compositions. 3,525,708, 8-25-70, Cl. 260-45.85

Clark, Charles W., to United States of America, Air Force. Acceleration actuated valve. 3,528,441, 9-15-70, Cl. 137-48.

Clark, Chester G., to Udylite Corporation, The. Conveying machine. 3,504,812, 4-7-70, Cl. 214-89.

Clark, Clarence C.; and Hetzel, George F. Intersected jamb nut with collar retainer. 3,515,415, 6-2-70, Cl. 285-354.

Clark, Dalton C. Game play outcome calculator. 3,526,403, 9-1-70, Cl. 273-94.

Clark, David A. Attaching means for a soil sealer. 3,536,145, 10-27-70, Cl. 172-710.

Clark, Don B.; and Roster, Theodore J., to United States of America, Navy. Electromagnetic shielded door structure. 3,507,974, 4-21-70, Cl. 174-35.

Clark, Donald E.: *See—*
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Clark, Duncan; Hayden, Percy; and Charlton, John, to Imperial Chemical Industries Limited. Process for the production of ethylene compounds. 3,515,758, 6-2-70, Cl. 260-614.

Clark, Duncan; Hayden, Percy; and Charlton, John, to Imperial Chemical Industries Limited. Preparation of vinyl acetate. 3,536,751, 10-27-70, Cl. 260-497.

Clark, Duncan; and Wright, Donald, to Imperial Chemical Industries Limited. Production of esters from isobutylene. 3,530,172, 9-22-70, Cl. 260-497.

Clark, Edmund G., to Lockheed Aircraft Corporation. Heavy duty multiple axle vehicle. 3,527,471, 9-8-70, Cl. 280-81.5

Clark, Edward Burns, Jr. Flexible measuring tape scriber. 3,526,964, 9-8-70, Cl. 33-27.

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Stuller, Howard E.; Goldkuhle, Werner P.; and Stephenson, Talmadge A., 3,510,969.
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Abson, James W.; Landau, Manfred; Clark, Eric I.; and Molyneux, Alan,3,549,559.
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Clark, Farnsworth D. Distortion cancelling circuit for amplifiers. 3,525,052, 8-18-70, Cl. 330-149.

Clark, Francis A. Fastening device. 3,520,035, 7-14-70, Cl. 24-255.

Clark, Frank E., to Container Corporation of America. Container sleeve. 3,543,994, 12-1-70, Cl. 229-23.

Clark, Frank M. Plastic horse shoe and method of applying to hoof. 3,494,422, 2-10-70, Cl. 168-4.

Clark, Frank S.: *See—*
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Clark, Gaylord J. Rotary brush construction. 3,529,314, 9-22-70, Cl. 15-183.

Clark, Geoffrey William, to Resources and Facilities Corporation, mesne. Printed circuit panel. 3,504,098, 3-31-70, Cl. 174-68.5

Clark, George B., to Aqua-Chem, Inc. Tubular reverse osmosis equipment. 3,542,204, 11-24-70, Cl. 210-321.

Clark, George F., & Sons (Toolmakers) Ltd.: *See—*
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Clark, George L., to Xerox Corporation, mesne. Laser stabilizing system. 3,500,236, 3-10-70, Cl. 331-94.5

Clark, George L.; Katzman, Morris; and Harris, Ellis D. Laser system with optical discriminator. 3,534,289, 10-13-70, Cl. 331-94.5

Clark, George M.; and Smith, Horace V., Sr., to Metrol Corporation. Automatic winding device. 3,527,140, 9-8-70, Cl. 91-170.

Clark, George M.: *See—*
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Clark, George W., III. Chromatography apparatus. 3,516,546, 6-23-70, Cl. 210-198.

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Clark, Gregor Fyfe: *See—*
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Clark, Harold A., to Dow Corning Corporation. Pressure sensitive adhesive made from siloxane resins. 3,527,842, 9-8-70, Cl. 260-825.

Clark, Harold B.; and Kolb, Kenneth M., to Du Pont de Nemours, E. I., and Company. Purifying crude $TiCl_4$ vapor. 3,533,733, 10-13-70, Cl. 23-87.

Clark, Harold B.; and Kolb, Kenneth M., to Du Pont de Nemours, E. I., and Company. Purifying crude $TiCl_4$ vapor. 3,533,734, 10-13-70, Cl. 23-87.

Clark, Harold E.: *See—*
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Clark, Harold E., to Xerox Corporation. Scriptwriter using fiber optic bundle. 3,496,846, 2-24-70, Cl. 95-4.5

Clark, Harold E.; and Mott, George R., to Xerox Corporation. Image projection. 3,519,344, 7-7-70, Cl. 355-5.

Clark, Harold W.; and Stilley, George W., to PPG Industries, Inc. Glass press shaping means with movable fabric cover. 3,523,783, 8-11-70, Cl. 65-287.

Clark, Herman T.: *See—*
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Clark, Hildegarde C. Protective aluminum foil cover for stoves. 3,490,123, 1-20-70, Cl. 29-183.

Clark, Howard S.: *See—*
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Clark, Hubert M.: *See—*
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Clark, Hugh W. Floral display support for gravestones. 3,511,461, 5-12-70, Cl. 248-27.8

Clark, J. L., Manufacturing Co.: *See—*
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Clark, James A., to Bausch & Lomb Incorporated. Crank and link mechanism for nonlinearly related motions. 3,516,732, 6-23-70, Cl. 350-187.

Clark, James E., to Bell Telephone Laboratories, Incorporated. Apparatus for bonding a beam-lead device to a substrate. 3,529,759, 9-22-70, Cl. 228-6.

Clark, James K.; Watters, Larry H.; and Ogura, Kenji, to Goodyear Tire & Rubber Company, The. Method of retarding substrate surface fouling. 3,551,539, 12-29-70, Cl. 264-85.

Clark, James. Method and means for reducing the skin friction of bodies moving in a fluid medium. 3,510,094, 5-5-70, Cl. 244-130.

Clark, Jared W.; and Rectenwald, Charles E., to Union Carbide Corporation. Chloropentafluoroethane-pentafluoroethane azeotropic compositions. 3,505,233, 4-7-70, Cl. 252-67.

Clark, Jared W.; and Rectenwald, Charles E., to Union Carbide Corporation. Azeotropic composition. 3,527,708, 9-8-70, Cl. 252-170.

Clark, Jared W.; and Rectenwald, Charles E., to Union Carbide Corporation. Azeotropic composition. 3,530,073, 9-22-70, Cl. 252-170.

Clark, John C.: *See—*
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Gergen, William P.; Clark, John C.; and Martin, Jon W.,3,541,842.

Clark, John I.; and Ryan, William P., to Mite Corporation. Attendance recorder with adjustable programming means. 3,512,159, 5-12-70, Cl. 346-86.

Clark, John R., to Witco Chemical Company, Inc.Separation and purification of 4,4'- dihydroxy diphenyl sulfone. 3,551,501, 12-29-70, Cl. 260-607.

Clark, Joseph A. Submerged object visualizer. 3,533,056, 10-6-70, Cl. 340-3.

Clark, Joseph C. Spherical triangle resolver. 3,507,446, 4-21-70, Cl. 235-61.

Clark, Joseph W. Phillips Petroleum Company Temperature control. 3,506,715, 4-14-70, Cl. 260-609.

Clark, Keith Jasper, to Imperial Chemical Industries Limited. Olefin copolymers containing polar groups and process for their preparation. 3,492,277, 1-27-70, Cl. 260-88.1

Clark, Keith Jasper; and Jones, Michael E. B., to Imperial Chemical Industries Limited. Copolymers of 4-methyl pentene-1 with linear 1- olefines. 3,489,735, 1-13-70, Cl. 260-88.2

Clark, Keith Jasper; Turner-Jones, Annette La Touche; and Palmer, Rex Percival, to Imperial Chemical Industries Limited. Polyolefin compositions. 3,505,430, 4-7-70, Cl. 260-878.

Clark, Kendall; Beck, George C.; Creighton, Eugene J.; DeTurris, Frank L.; Drop, Joseph G.; Godat, Jean J. L.; Larsen, Arne H.; Rajac, Thomas J.; Santillo, George R., Jr.; and Schueike, Walter J., to International Business Machines Corporation. Chip positioning machine. 3,499,203, 3-10-70, Cl. 29-203.

Clark, Kenneth Gould; and Kemp, David Charles, to Feed Service (Livestock) Limited. Mechanical feeders for livestock. 3,515,099, 6-2-70, Cl. 119-75.

Clark, Kenneth R., deceased (by Clark, Marilyn J.; executrix), to Oster, John, Manufacturing Co. Combination can opener and ice crusher. 3,515,357, 6-2-70, Cl. 241-101.

Clark, Kenneth R., deceased (by Clark, Marilyn J.; special administrator), to Oster, John, Manufacturing Co. Ice crusher. 3,534,915, 10-20-70, Cl. 241-100.

Clark, Kenneth S., to Kahr Bearing Corporation. Method of forming a spherical bearing. 3,540,105, 11-17-70, Cl. 29-149.5

Clark, Larry Keith; and Hill, Frank Willis, to Gulf & Western Industries, mesne. Timed decision load control system. 3,522,581, 8-4-70, Cl. 340-37.

Clark, Leland C., Jr. Membrane polarographic electrode system and method with electrochemical compensation. 3,539,455, 11-10-70, Cl. 204-1.

Clark, Louis J. Air foil flying device with multiple-stage lift areas. 3,547,384, 12-15-70, Cl. 244-154.

Clark, Lowell E., to Motorola, Inc. High voltage Schottky barrier diode. 3,513,366, 5-19-70, Cl. 317-235.

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Clark, Maurice H. Shoulder springboard device. 3,533,621, 10-13-70, Cl. 272-66.

Clark Metal Products, Inc.: *See—*
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Clark, Michael J.; and Simek, John G., to International Business Machines Corporation. Low noise power switching circuits. 3,509,377, 4-28-70, Cl. 307-252.

Clark, Norman E.; and Eskild, Theodore, to Garlock Inc. Unitary bearing element with improved, integral scraper-sealing lip. 3,527,507, 9-8-70, Cl. 308-3.5

Clark, Otto A.: *See—*
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Clark, Paul P.: *See—*
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Clark, Peter Vincent McDonald: *See—*
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Morton, Peter Harlow; and Clark, Peter Vincent McDonald,3,515,544.

Clark, Philip C.; Kite, Wilbur L., Jr.; and Sanders, Frederick W., to Mead Corporation, The. Components for electrophotographic compositions and processes. 3,489,559, 1-13-70, Cl. 96-1.5

Clark, R. L., Corporation, The: *See—*
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Clark, Raymond C., to Huyck Corporation. Continuously variable hydrofoils for paper making wires. 3,497,420, 2-24-70, Cl. 162-352.

Clark, Raymond C., to Huyck Corporation. Vertical shake apparatus for papermaking wire. 3,549,487, 12-22-70, Cl. 162-356.

Clark, Reginald F.: *See—*
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Clark, Reginald Thomas, to Alfa-Laval AB. Method and apparatus for continuous sterilization of liquids. 3,512,998, 5-19-70, Cl. 99-212.

Clark, Richard A.: *See—*
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Clark, Richard B., to Whittaker Corporation. Erection system for vertical gyros. 3,498,145, 3-3-70, Cl. 74-5.43

Clark, Richard B.; and Darragh, Charles T., to Caterpillar Tractor Company. Engine with hydrodynamic retarder. 3,490,567, 1-20-70, Cl. 192-3.

Clark, Richard S.: *See—*
Ettman, Henry L.; Kuester, Frank E.; Weisz, John J.; and Clark, Richard S.,3,503,399.

Clark, Richard U. Electrical pin jacks. 3,506,948, 4-14-70, Cl. 339-126.

Clark, Richard Walter, to Clark, George F., & Sons (Toolmakers) Ltd. Device for dispensing strip material from a stock reel. 3,534,918, 10-20-70, Cl. 242-55.

Clark, Robert A., Jr. Remote operator coin control using multi-frequency tones. 3,499,117, 3-3-70, Cl. 179-6.3

Clark, Robert C., to Automatic Electric Laboratories, Inc. Conference arrangement having a plurality of transmission modes. 3,515,807, 6-2-70, Cl. 179-18.

Clark, Robert C., to General Electric Company. Measuring by means of the infrared emission therefrom the length of a moving hot metal slot. 3,532,887, 10-6-70, Cl. 250-83.3

Clark, Robert L.; and Fisher, Michael H., to Merck & Co., Inc. Method of treating malaria with a loweralkyl 4-hydroxy-6,7-disubstituted quinoline-3- carboxylates. 3,549,761, 12-22-70, Cl. 424-258.

Clark, Robert L.; and Rogers, Edward F., to Merck & Co., Inc. Lower alkoxy-amino-benzylamines. 3,520,930, 7-21-70, Cl. 260-570.9

Clark, Robert L.; and Wu, Mu Tsu, to Merck & Co., Inc. 6,7-Disubstituted-4-hydroxy-quinoline-3-carboxylates. 3,549,642, 12-22-70, Cl. 260-287.

Clark, Robert L.: *See—*
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Rogers, Edward F.; and Clark, Robert L.,3,499,968.
Rogers, Edward F.; and Clark, Robert L.,3,510,480.

Clark, Robert O., to United States of America, Air Force. Gas partitioning pressure regulator. 3,545,485, 12-8-70, Cl. 137-508.

Clark, Robert P.; and Grothaus, Kenneth R., to United States of America, Atomic Energy Commission. Thermal battery having protectively coated calcium anode to prevent alloy shorting. 3,527,615, 9-8-70, Cl. 136-83.

Clark, Robert T.: *See—*
United States of America,National Aeronautics and Space Administration, Administrator, 3,495,262.

Clark, Roger, to Lucas, Joseph, (Industries) Limited. Fuel supply systems for internal combustion engines. 3,487,820, 1-6-70, Cl. 123-119.

Clark, Ronald D.; and Milberger, Ernest C., to Standard Oil Company, The. Process for the recovery of antimony and uranium catalyst metals. 3,489,788, 1-13-70, Cl. 260-465.3

Clark, Ronald; and Corlett, Ewan Christian Brew, to Hydroconic Limited. Propulsive systems for vessels. 3,528,382, 9-15-70, Cl. 114-162.

Clark, Roy: *See—*
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Clark, Sheldon L.; Polak, Roger J.; and Wojtowicz, John A., to Olin Mathieson Chemical Corporation. Oxetyl tosylates and halooxetanes. 3,517,030, 6-23-70, Cl. 260-333.

Clark, Thomas F., to Allis-Chalmers Manufacturing Company. Control for monitoring pressure in a gas blast circuit breaker. 3,551,621, 12-29-70, Cl. 200-148.

Clark, Thomas J.; and Brown, Howard W., to General Electric Company. Graphite susceptor. 3,549,847, 12-22-70, Cl. 219-10.49

Clark, Thomas M.; and Greiner, Joseph D. Anti-theft electronic switch. 3,492,494, 1-27-70, Cl. 307-10.

Clark, Thomas R., to Du Pont de Nemours, E. I., and Company. Rotary manifold. 3,540,475, 11-17-70, Cl. 137-594.

Clark, Thomas W., to Pic Design Corporation. Link sprocket chain. 3,522,743, 8-4-70, Cl. 74-249.

Clark, Trevor P.; and Trussell, Paul C. Adhesive composition for wood and metal. 3,502,605, 3-24-70, Cl. 260-29.7

Clark, Vincent de P.; and Shannon, Richard F., to Owens-Corning Fiberglas Corporation. Acoustical tile-vinyl faced acoustical tile spray coating method. 3,494,782, 2-10-70, Cl. 117-72.

Clark, Walter W.: *See—*
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Clark, Wesley D. Disposable needleless hypodermic injector. 3,527,212, 9-8-70, Cl. 128-173.

Clark, Willard, to Maul Bros. Inc. Magnetic conveyor drive unit. 3,497,056, 2-24-70, Cl. 198-203.

Clark, William C., to Phillips Petroleum Company. Butadiene purification. 3,534,117, 10-13-70, Cl. 260-681.5

Clark, William T., III. Infinitely variable inductive remote control system. 3,488,632, 1-6-70, Cl. 340-171.

Clark-Aiken Company, The: *See—*
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Clark-Reliance Corporation, The: *See—*
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Clarke, Chapman & Co. Limited: *See—*
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Clarke, Charles J., Jr.; Channell, Earl C.; Gormley, Joseph; McKinight, George W.; and Templeton, Leroy N., Jr., to Honeywell Inc. Direct digital control interfacing circuitry. 3,522,588, 8-4-70, Cl. 340-147.

Clarke, Colin Michael, to General Electric Company Limited, The. Pulse receiver whose output does not respond to signal distortion existing during short, intermittent periods. 3,500,211, 3-10-70, Cl. 325-323.

Clarke, Dennis I., to Dunlop Rubber Company Limited. Production of microporous flexible materials. 3,499,811, 3-10-70, Cl. 156-176.

Clarke, Derrick S.; and Hill, Alan H., to General Engineering Company (Radcliffe) Limited. Manufacture of extruded plastic tube or film. 3,492,693, 2-3-70, Cl. 18-14.

Clarke, Edwin E., Jr.; and Meshulam, Avram M., to Black and Decker Manufacturing Company, The. Integral plug and strain relief cord set and method of manufacture. 3,521,220, 7-21-70, Cl. 339-62.

Clarke, Evans L., to Case, J. I., Company. Header floatation mechanism. 3,509,701, 5-5-70, Cl. 56-208.

Clarke, Frank H., Jr., to Geigy Chemical Corporation. Qxazinoisoquinoline. 3,498,980, 3-3-70, Cl. 260-244.

Clarke, Frank H., Jr., to Geigy Chemical Corporation. Pharmaceutical compositions and uses of oxazinoisoquinoline derivatives. 3,551,565, 12-29-70, Cl. 424-248.

Clarke, Frank H., Jr.; and Block, Fred B., to Geigy Chemical Corporation. N-carbamyl and thiocarbamyl-1,2-diphenyl-2- propionoxy-4-methylaminobutanes. 3,498,976, 3-3-70, Cl. 260-247.2

Clarke, Frank H., Jr.; and Block, Fred B., to Geigy Chemical Corporation. N-carbamyl and thiocarbamyl-4 carbethoxy-4- phenylpiperidines. 3,498,977, 3-3-70, Cl. 260-247.2

Clarke, Frank H., Jr.; and Block, Fred B., to Geigy Chemical Corporation. 3-Pipecoline derivatives. 3,498,978, 3-3-70, Cl. 260-247.2

Clarke, Frank H., Jr.; and Block, Fred B., to Geigy Chemical Corporation. N-carbamyl and thiocarbamyl-2,3,4,5-tetrahydro-1,4-methano-1H-3-benzazepines. 3,539,637, 11-10-70, Cl. 260-247.2

Clarke, Frank H., Jr.: *See—*
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Clarke, Frederick W., to Rogers and Clarke Manufacturing Co. Machine tool having a variable-stroke drive. 3,494,077, 2-10-70, Cl. 51-58.

Clarke, George A., Jr.: *See—*
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Clarke, Gordon J.: *See—*
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Clarke, James A., to Dow Chemical Company, The. Thermosettable epoxy resin adhesive compositions containing flexibilizing amounts of a thermoplastic polymeric modifier based on a polymerized alkyl ester of acrylic acid. 3,509,230, 4-28-70, Cl. 260-836.

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Clarke, James S.; and Karcher, Guido G., to Esso Research and Engineering Company. Insulated cryogenic tank. 3,495,732, 2-17-70, Cl. 220-10.

Clarke, Jesse E., to Autoquip Corporation. U-frame hydraulic vehicle lift. 3,489,248, 1-13-70, Cl. 187-8.41

Clarke, Jesse E., to Autoquip Corporation. Portable servicing lift for vehicle. 3,536,161, 10-27-70, Cl. 187-8.59

Clarke, Jesse E., to Autoquip Corporation. 'U' frame hydraulic vehicle lift. 3,536,162, 10-27-70, Cl. 187-8.75

Clarke, John F., to Texas Instruments, Incorporated. Alloy foil. 3,487,521, 1-6-70, Cl. 29-182.5

Clarke, John F., to Texas Instruments, Incorporated. Heat treatment of clad wire or the like. 3,499,804, 3-10-70, Cl. 148-127.

Clarke, John F., to Texas Instruments, Incorporated. Method of ceramic brazing. 3,513,535, 5-26-70, Cl. 29-473.1

Clarke, John F.: *See—*
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Clarke, John Michael, to National Research Development Corporation. Rotary machines. 3,545,899, 12-8-70, Cl. 418-68.

Clarke, Michael E.; and Morell, Bryan, to British Oxygen Company Limited, The. Reciprocating piston engine. 3,538,815, 11-10-70, Cl. 92-127.

Clarke, Morris H., to Jefferson Chemical Company, Inc. Ethylene glycol recover. 3,525,774, 8-25-70, Cl. 260-637.

Clarke, Ray Allen, to Du Pont de Nemours, E. I., and Company. Cationic aryl monoazo and disazo-3- substituted-1-aminomethylpyrazolone dyes. 3,549,612, 12-22-70, Cl. 260-160.

Clarke, Robert E. Combination contraceptive device and inserter. 3,492,990, 2-3-70, Cl. 128-130.

Clarke, Robert E. Flowmeter. 3,497,106, 2-24-70, Cl. 222-20.

Clarke, Robert George, to Eastman Kodak Company. Photographic activator solution. 3,516,829, 6-23-70, Cl. 96-50.

Clarke, Robert J. Dust mitt cleaning attachment for a vacuum cleaner and the like. 3,516,109, 6-23-70, Cl. 15-310.

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Clarke, Trevor G.; Bowden, Ernest R.L.; and Tustin, Oliver A., to Modern Mining Machinery Limited. Mineral cutting machines. 3,517,967, 6-30-70, Cl. 299-51.

Clarke, Vaughan Richard, to National Research Development Corporation. Electric analogue calculator for the determination of capital investment profitability. 3,500,030, 3-10-70, Cl. 235-184.

Clarke, Walter W. H., to C. B. Associates Limited. Gyroscopically actuated electric switches. 3,522,395, 7-28-70, Cl. 200-61.45

Clarke, Walter Wilson Hugh, to C.B. Associates Limited. Inertia switch having holding means. 3,493,701, 2-3-70, Cl. 200-61.45

Clarke, Ward W.; and Meyer, Leonard S., to Leopold, F. B., Company, Inc. Rotary washer for filter beds. 3,494,464, 2-10-70, Cl. 210-136.

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Clarkson, John Robert, to Clarkson, J. R., Company, The. Valve assembly. 3,503,416, 3-31-70, Cl. 137-375.

Clarkson, John Robert, to Clarkson, J. R., Company, The. Collapsible tube. 3,550,899, 12-29-70, Cl. 251-5.

Clarkson, Richard, to Imperial Chemical Industries Limited. (°)-8-Aza-19-norpregn-4-en-3,20-diones. 3,507,873, 4-21-70, Cl. 260-289.

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Clary, Hugh L., to Clary Corporation. Perforated card controlled registering machine. 3,539,779, 11-10-70, Cl. 235-61.112

Clas, Wilhelm; and Gierenz, Gerhard, to Henkel & Cie G.m.b.H. Polyvinyl chloride plastisols containing tri glycidyl isocyanurates. 3,523,984, 8-11-70, Cl. 260-836.

Clash, Douglas Keith. Foldable step structure for campers. 3,516,515, 6-23-70, Cl. 182-96.

Class, Jay B., to Hercules Incorporated. Reaction products of rosin-fumaric acid adducts and alkylene oxides. 3,541,134, 11-17-70, Cl. 260-468.5

Class, Jean, to Societe Dite: les Ateliers de Constructions Mecaniques C. & A. Holweg, S.A.R.L. Manufacture of paper and like bags with attached flat handles. 3,494,264, 2-10-70, Cl. 93-35.

Classen, Hans-Heinrich, to Rokal G.m.b.H., Firma. Faucet with automatic closure valve for wash basin. 3,487,477, 1-6-70, Cl. 4-166.

Classen, Hans-Heinrich, to Rokal G.m.b.H., Firma. Device for aerating the water jet emerging from a spigot or the like. 3,531,051, 9-29-70, Cl. 239-428.5

Classen, Hans Heinrich, to Rokal G.m.b.H., Firma. Device for aerating water under pressure, particularly for household water supply. 3,537,651, 11-3-70, Cl. 239-428.5

Claude Paz et Visseaux: *See—*
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Claunch, M Wayne; Arriola, William A.; and Regelson, Ephraim, to United States of America, Navy. Missile tracking simulator. 3,507,055, 4-21-70, Cl. 35-25.

Claus, Kurt; and Gehring, Eckard, to Schloemann Aktiengesellschaft. Production of shaped pieces, strips or sections from metal particles. 3,533,782, 10-13-70, Cl. 175-213.

Claus, Kurt; Gehring, Eckard; Geier, Ulf; Marx, Werner; and Kaiser, Oswald, to Schloemann Aktiengesellschaft. Apparatus for producing continuous steel strip or other section. 3,505,706, 4-14-70, Cl. 18-9.

Claus, Kurt; Gehring, Eckard; Geier, Ulf; and Marx, Werner, to Schloemann Aktiengesellschaft. Regulating the feeding of metal particles to the roll gap of a rolling mill. 3,506,439, 4-14-70, Cl. 75-226.

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Clauson, Arthur D., to Sun Electric Corporation. Flow transducer. 3,548,133, 12-15-70, Cl. 200-81.9

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Clavelloux, Noel; and Boursault, Jean, to CSF-Compagnie Generale de Telegraphie Sans Fil. Electrostatic suspension arrangements of gyroscope rotors. 3,496,780, 2-24-70, Cl. 74-5.

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Clawson, Arthur R.; and Wieder, Harry H,, to United States of America, Navy. Ohmic low resistance contact to gallium arsenide. 3,532,562, 10-6-70, Cl. 148-179.

Clawson, Charles Dale; and Clawson, Arthur Harley, Jr., to Mallory, P. R., & Co., Inc. Pressure support resonator mounting. 3,535,569, 10-20-70, Cl. 310-9.2

Clawson, Lawrence G., to Dynatech Corporation. Internal combustion engine. 3,508,530, 4-28-70, Cl. 123-191.

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Clay, Everett C.; DeGeorge, Peter J.; Lockett, Wilson I.; McDonald, William L.; and Stewart, Joseph R., to International Business Machines Corporation. Electronic computing business machine. 3,525,984, 8-25-70, Cl. 340-172.5

Clay, Herbert Frank, to Cromford Colour Company Limited. Pigment compositions. 3,493,411, 2-3-70, Cl. 106-292.

Clay, John A., to Turnbull Marine Design Company, Limited. Propeller tail-shafts of ships. 3,540,405, 11-17-70, Cl. 115-34.

Clay, Lee, Products Company: *See—*
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Clay, Robert A. Aerosol actuated jack. 3,523,679, 8-11-70, Cl. 254-93.

Clay, Robert B., to Skinner Precision Industries, Inc. Reversible valve actuating mechanism. 3,502,096, 3-24-70, Cl. 137-270.

Clay, Robert B.; and Bailey, Donald T., to International Research and Engineering Company, Inc. Booster and method of use. 3,491,688, 1-27-70, Cl. 102-24.

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Cleary, Thomas F., to Centerchem, Inc. Purification of 2,4,5-Trichlorophenol. 3,499,045, 3-3-70, Cl. 260-623.

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Clecak, Nicholas J.; and Cox, Robert J., to International Business Machines Corporation. Electrophotographic process using organic photoconductors having at least two chromophores. 3,549,358, 12-22-70, Cl. 96-1.

Clecak, Nicholas J.; Cox, Robert J.; Solar, Samuel L.; and Wurster, Herbert K., to International Business Machines Corporation. Photoconductive benzobisthiazoles and their use in electrophotographic processes. 3,489,558, 1-13-70, Cl. 96-1.

Clecak, Nicholas J.; Cox, Robert J.; Solar, Samuel L.; and Wurster, Herbert K., to International Business Machines Corporation. Photoconductive benzobisthiazoles and their use in electrophotographic processes. 3,501,293, 3-17-70, Cl. 96-1.

Cledat, Jean; Moreau, Michel; and Rappeneau, Jean, to Commissariat a l'Energie Atomique. Neutron-absorbing graphitic product and method of preparation. 3,516,948, 6-23-70, Cl. 252-478.

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Cleemann, Johann; and Meyer, Gunther, to Dynamit Nobel Aktiengesellschaft. Polymerization of vinyl chloride in the presence of an acrylic ester polymer. 3,548,034, 12-15-70, Cl. 260-884.

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Cleff, Peter Herbert. Means for generating involute gears. 3,499,252, 3-10-70, Cl. 51-123.

Cleff, Peter Herbert. Means for generating internal and external involute and non-involute gears. 3,540,157, 11-17-70, Cl. 51-52.

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Cleland, Charles E.; Robinson, La Roy E.; and Ullevig, Donald M., to Continental Machines, Inc. Work indexing apparatus for cutoff saws. 3,510,040, 5-5-70, Cl. 226-141.

Cleland, Ernie K., to Dike-O-Seal, Incorporated. Pressurizable elastomeric thrusting device. 3,512,756, 5-19-70, Cl. 254-93.

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Clelford, Peter; Coulter, John Michael; and Neumann, Georg Sigfrid, to Ciba Limited. Epoxide resin compositions. 3,519,582, 7-7-70, Cl. 260-18.

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Clemans, Earl J. Paint scraper hand tool. 3,530,524, 9-29-70, Cl. 15-236.

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Clemens, Carl F.; and Lenhard, Myron J., to Xerox Corporation. Imaging systems. 3,502,582, 3-24-70, Cl. 252-62.1

Clemens, Clifford E. Contractible door. 3,490,173, 1-20-70, Cl. 49-104.

Clemens, George W., Jr.; and Mascy, Alfred C., to United States of America, National Aeronautics and Space Administration. Deep-space-monitor communication satellite system. 3,540,048, 11-10-70, Cl. 343-100.

Clemens, Lawrence M.; McKillip, William J.; and Sedor, Edward A., to Ashland Oil & Refining Company. Hydroxyl-, mercapto-, and amino- substituted aminimides. 3,499,032, 3-3-70, Cl. 260-561.

Clemens, Milton Lewis, Jr., to Eastman Kodak Company. Process for preparing polyalkyl-p-benzoquinone. 3,549,669, 12-22-70, Cl. 260-396.

Clemens, Ogden A.; Schreuder, Thomas R.; and Panek, Mitchell W., to Swift & Company. Interleaving of food slices. 3,538,674, 11-10-70, Cl. 53-123.

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Clemens, William J., to United States of America, Interior. Water level control system. 3,495,411, 2-17-70, Cl. 61-23.

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Clement, Jennings C. Inflatable genital device. 3,495,589, 2-17-70, Cl. 128-79.

Clement, John H. Key holder. 3,530,698, 9-29-70, Cl. 70-457.

Clement, Louis, to Societe Nouvelle Spidem. Apparatus for dismounting and remounting the rolls in a four-high rolling mill. 3,504,517, 4-7-70, Cl. 72-239.

Clement, Oliver R.; Lewis, Lynn David; and Thompson, James F., to General Motors Corporation. Acceleration measuring system. 3,545,284, 12-8-70, Cl. 73-517.

Clement, Rene, to Commissariat a l'Energie Atomique, and Societe de Fabrication d'Elements Catalytiques (SFEC). Cord for coating by blowpipe projection. 3,503,844, 3-31-70, Cl. 161-175.

Clement, Rene; and Ducos, Maurice, to Societe de Fabrication d'Elements Catalytiques. Heater element. 3,504,327, 3-31-70, Cl. 338-262.

Clement, Robert Alton, to Du Pont de Nemours, E. I., and Company. Method of making 1,4-cyclohexadiene. 3,513,209, 5-19-70, Cl. 260-666.

Clements, Alwin S.: *See—*
Metcalfe, Kenneth A.; and Clements, Alwin S.,3,507,679.

Clements, Edwin F. Therapeutic hydro-massage device. 3,528,411, 9-15-70, Cl. 128-66.

Clements, Harry Ernst; and Piegza, H. John, to Welding & Steel Fabrication Co., Inc. Sealed door leveling system. 3,488,883, 1-13-70, Cl. 49-246.

Clements, Harry R., to Rohr Corporation. Process for the on-site fabrication of a large capacity fiber reinforced resin tank. 3,524,780, 8-18-70, Cl. 156-191.

Clements, Harry R., to Rohr Corporation. Apparatus for fabricating a large capacity cylindrically shaped tank of fiber reinforced resin. 3,537,938, 11-3-70, Cl. 156-446.

Clements, Herbert A.: *See—*
Sinclair, Harold; and Clements, Herbert A.,3,534,843.

Clements, John A., to Technicon Corporation. Liquid analysis method and apparatus therefor. 3,512,936, 5-19-70, Cl. 23-230.

Clements, John A.: *See—*
Potter, Carl R.; Clements, John A.; and Mooney, James J., Jr.,3,504,493.

Clements, John W., to Flexicon Electronics, Inc. Electrical connector. 3,522,484, 8-4-70, Cl. 317-101.

Clements, John W., to Flexicon Electronics, Inc. Electrical connector. 3,539,967, 11-10-70, Cl. 339-17.

Clements, Richard A.; and Iannuzzi, Frank J., to Inmont Corporation. Printing ink. 3,533,811, 10-13-70, Cl. 106-24.

Clements, Richard F.: *See—*
Bless, Paul W.; and Clements, Richard F.,3,544,793.
Lowery, Andrew; and Clements, Richard F.,3,492,479.

Clements, Thomas W., to Emerson Electric Co. Integrator. 3,494,207, 2-10-70, Cl. 74-112.

Clements, William C., to Armco Steel Corporation. Thin-walled pile with closure plug. 3,543,524, 12-1-70, Cl. 61-53.

Clemesha, Oliver R.: *See—*
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Clemm, Peter J., to General Electric Company. Apparatus for vacuum-casting a plurality of metal parts in a single mold. 3,506,061, 4-14-70, Cl. 164-254.

Clemmons, Quentin T., to Westinghouse Air Brake Company. Pneumatic-hydraulic tread brake unit for railway car trucks. 3,517,784, 6-30-70, Cl. 188-196.

Clemmons, William R.: *See—*
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Clemons, Cecil F., to Singer Company, The. Locking device for a postage meter. 3,502,266, 3-24-70, Cl. 235-101.

Clemow, John: *See—*
Desoye, Marguerite; and Clemow, John,3,512,527.

Clemson Industries, Inc.: *See—*
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Clendenin, Wilbur H., to International Harvester Company. Forage harvester. 3,546,861, 12-15-70, Cl. 56-23.

Clendenin, Wilbur H.: *See—*
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Clendenin, William H.: *See—*
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Clentimack, George E., Co., Inc., The: *See—*
Hare, Richard C., 3,498,554.

Clentimack, George F., Co., Inc., The: *See—*
Hare, Richard C., 3,513,652.

Cleo Wrap Corporation: *See—*
West, William S.; and Henchman, Parker C., 3,523,402.

Clerc, Michel, to Commissariat a l'Energie Atomique. Optical scanning device for rapid spectroscopy. 3,537,795, 11-3-70, Cl. 356-51.

Clery, Raymond Maurice; and Pechdo, Claude Ange Maurice, to Les Tanneries de Sireuil. Pneumatically operated sealing device, more particularly for tannery drums. 3,500,584, 3-17-70, Cl. 49-209.

Cless, Karl: *See—*
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Cleve Corporation: *See—*
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Cleveland Aircraft Products Co., The: *See—*
Van Sickle, Elmer; Van Sickle, Joseph W.; and Kruke, Edward J., 3,525,421.

Cleveland Building Supply Company, The: *See—*
Gutt, Tadius J., 3,487,597.

Cleveland Container Corporation: *See—*
Davis, James L., 3,502,005.

Cleveland, Donald S.; and Zalanskas, Victor J. Magnetic compass. 3,502,857, 3-24-70, Cl. 240-2.1

Cleveland, Garry J.: *See—*
Lipanovich, Marko I.; and Cleveland, Garry J.,3,492,657.

Cleveland, Henry B. Self-unloading vehicle body. 3,502,371, 3-24-70, Cl. 298-1.

Cleveland Pneumatic Tool Company, The: *See—*
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Cleveland Range Company, The: *See—*
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Cleveland, Robert E.; and Gilbert, Marcellus N., Jr., to Sylvania Electric Products, Inc. Inspection apparatus comprising rotatable and reciprocable light-transmitting fiber bundle. 3,510,667, 5-5-70, Cl. 250-227.

Cleveland Technical Center, Inc.: *See—*
King, Joseph W.; and McClaren, Donald L., 3,515,984.
King, Joseph W., 3,533,373.
Simmons, Lawrence C., 3,490,292.

Cleveland, Thomas H., to Mobay Chemical Company. Cyanuric chloride branched polycarbonates. 3,541,049, 11-17-70, Cl. 260-47.

Cleveland, Thomas H.; and Rawlings, Herbert L., to Mobay Chemical Company. Polycarbonates stabilized with cyclic phosphites. 3,509,091, 4-28-70, Cl. 260-45.8

Cleveland, Thomas H.; and Wirfel, Emanuel W., to Mobay Chemical Company. Method for reducing the solvent content of a polycarbonate. 3,505,273, 4-7-70, Cl. 260-33.8

Clevenger, Galen W. Process to recover copper from sulfide concentrates. 3,524,802, 8-18-70, Cl. 204-108.

Clevenger, Juel D.; Pickinpaugh, Asa; and Waters, Michael A., to Cook Chemical Company. Control valve for hand pumps. 3,500,761, 3-17-70, Cl. 103-188.

Clevenger, Juel D.; Pickinpaugh, Asa; and Waters, Michael A., to Cook Chemical Company. Hand pump having free floating valve. 3,531,224, 9-29-70, Cl. 417-513.

Clevenger, Loyd H., to Texas Instruments, Incorporated. Modified planar process for making semiconductor devices having ultrafine mesa type geometry. 3,534,234, 10-13-70, Cl. 317-235.

Clevenger, Robert G.: *See—*
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Clevepak Corporation: *See—*
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Clevite Corporation: *See—*
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Jaffe, Hans; Shiozawa, Lebo R.; and Sliker, Todd R., 3,531,179.
Koneval, Donald J.; and Curran, Daniel R., 3,528,851.
Krall, Charles F., 3,503,109.
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Selker, Milton L.; and Makowski, Mieczyslaw P., 3,488,225.
Strauss, Howard J., 3,525,647.
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Thompson, Allan R., 3,550,156.

Cliche, Carl E.: *See—*
Grubb, Willard T.; and Cliche, Carl E.,3,508,970.
Grubb, Willard T.; and Cliche, Carl E.,3,522,096.

Cliff, Rodger A., to United States of America, National Aeronautics and Space Administration. Apparatus for computing square roots. 3,508,039, 4-21-70, Cl. 235-158.

Cliff, Rodger A., to United States of America, National Aeronautics and Space Administration. Data processor having multiple sections activated at different times by selective power coupling to the sections. 3,535,560, 10-20-70, Cl. 307-296.

Cliff, Rodger A.: *See—*
Schaefer, David H.; and Cliff, Rodger A.,3,532,866.

Cliffgard, Arnie L., to Beckman Instruments, Inc. Range scale circuit including temperature compensation element. 3,528,904, 9-15-70, Cl. 204-195.

Clifford, Cecil Frank. Tuning fork arrangement for electromechanical oscillators. 3,501,910, 3-24-70, Cl. 58-23.

Clifford, Cecil Frank. Tuning fork with frequency adjustment. 3,506,897, 4-14-70, Cl. 318-128.

Clifford, Cecil Frank. Electromechanical oscillators. 3,519,856, 7-7-70, Cl. 310-22.

Clifford, Cecil Frank. Electromechanical oscillator. 3,522,500, 8-4-70, Cl. 318-128.

Clifford, Cecil Frank. Electromechanical oscillator with rotary output. 3,532,912, 10-6-70, Cl. 310-21.

Clifford, Hugh J.; and Johnson, George H., to General Motors Corporation. Rotary regenerator. 3,511,309, 5-12-70, Cl. 165-9.

Clifford, Peterson Miller; and Silcocks, Alan Hubert, to Hawker Siddeley Dynamics Limited, and Sullivan, H. W., Limited. Electrical resistance comparison device utilizing an inductive radio standard. 3,523,247, 8-4-70, Cl. 324-62.

Clifford, Stanley, to Girling Limited. Warning devices for vehicle braking systems. 3,550,079, 12-22-70, Cl. 340-52.

Clift, Eugene Emerson. Cryptographic system. 3,495,038, 2-10-70, Cl. 178-22.

Clift, Eugene Emerson. Electric computerized vending system. 3,532,203, 10-6-70, Cl. 194-10.

Clift, Gilbert B., Jr.: *See—*
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Clift, Gilbert; and Smith, Christopher E., to Geo Space Corporation. Data transcribing mechanism. 3,495,271, 2-10-70, Cl. 346-138.

Clifton, Alfred, to CITC Industries, Inc. Footwear construction. 3,496,655, 2-24-70, Cl. 36-45.

Clifton, John M.; and Clifton, Rebecca A. Double action sanitary commode seat lifting and lowering device. 3,516,095, 6-23-70, Cl. 4-251.

Clifton, Rebecca A.: *See—*
Clifton, John M.; and Clifton, Rebecca A.,3,516,095.

Clifton, Robert A., Jr., to United States of America, Interior. Production of boron carbide whiskers. 3,525,589, 8-25-70, Cl. 23-208.

Clifton, William Hugh, to Little Giant Corporation. Fountain display apparatus. 3,503,554, 3-31-70, Cl. 239-23.

Climent, Louis J. Cigarette storage and lighter device. 3,526,751, 9-1-70, Cl. 219-267.

Clinard, Glenn W.: *See—*
Keck, Marvin Lloyd; and Clinard, Glenn W.,3,550,689.

Cline, Delbert C.; and Parkinson, Lyman P., to Firestone Tire & Rubber Company, The. Vehicle fuel tank with breakaway connections. 3,511,515, 5-12-70, Cl. 280-5.

Cline, Edwin L., to Clayton Manufacturing Company. Brake testing apparatus. 3,504,537, 4-7-70, Cl. 73-126.

Cline, Ernest E.: *See—*
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Cline, Ernest E., to Web Press Engineering Inc. Harmonic drive and method for controlling speed. 3,487,722, 1-6-70, Cl. 74-675.

Cline, James M., to Sperry Rand Corporation. Grounding switches for differential sense amplifiers in memory systems. 3,510,856, 5-5-70, Cl. 340-174.

Clingan, Andrew J. Fixedly directed hand operated striping machine with attachment for facilitating maneuverability. 3,540,632, 11-17-70, Cl. 222-178.

Clingenpeel, William R.; Cain, Charles L.; Hungerford, Philip C., Jr.; and Hayes, Robert R., to ESB Incorporated, mesne. Machine for casting battery intercell connectors and terminal posts. 3,547,183, 12-15-70, Cl. 164-333.

Clingenpeel, William R.; Hungerford, Philip C., Jr.; Hayes, Robert R.; and Jennens, Thomas W., to ESB Incorporated, mesne. Machine for crimping battery intercell connectors. 3,508,318, 4-28-70, Cl. 29-204.

Clingman, William H., Jr.; and Goode, George E., to Texas Instruments, Incorporated. Line sequential color television receiver. 3,505,464, 4-7-70, Cl. 178-5.4

Clingman, William H., Jr.: *See—*
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Clinkscales, Dorothy G. Carbonating and dispensing receptacle for liquids. 3,517,932, 6-30-70, Cl. 222-399.

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Clinton, Henry H. Apparatus for testing the insulation of electrical wire or cable by high voltage impulses. 3,510,763, 5-5-70, Cl. 324-54.

Clinton, Henry H. Device for testing the integrity of electrial wire insulation by means of high voltage impulser. 3,514,696, 5-26-70, Cl. 324-54.

Clinton, Raymond O.: *See—*
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Clinton, Raymond O., to Sterling Drug Inc.2-(Lower-alkoxy)methylene-androstan-17β-ol-3-ones and preparation thereof. 3,515,735, 6-2-70, Cl. 260-397.4

Clinton, Raymond O.17β-Hydroxy-5α-androstano[2,3-d]imidazoles. 3,547,908, 12-15-70, Cl. 260-239.5

Clinton, William P.; and Pettit, Floyd E., Jr., to General Foods Corporation. Coffee flavor enhancer. 3,540,889, 11-17-70, Cl. 99-71.

Clintwood Chemical Company: *See—*
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Clippinger, Everett; and Mulsakey, Bernard F., to Chevron Research Company. Group VIII noble metal, tin and solid inorganic refractory metal oxide catalyst composites and their use in hydrocarbon dehydrogenations. 3,531,543, 9-29-70, Cl. 260-683.3

Clizbe, David E.; and Crowell, John A., to Du Pont de Nemours, E. I., and Company. Dynamoelectric machine and corrugated plastic slot liner insert therefor. 3,515,923, 6-2-70, Cl. 310-215.

Cloete, Francis Louis Dirk; and Streat, Michael, to National Research Development Corporation. Solid/fluid contacting. 3,551,118, 12-29-70, Cl. 23-321.

Clor, Anthony G., Jr.: *See—*
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Close, Ablert R.: *See—*
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Close, Albert R., to Ford Motor Company. Seat back latch mechanism. 3,514,155, 5-26-70, Cl. 297-379.

Close, Bartholomew, to General Electric Company. Bus structure comprising a clamping bracket and a coated electric bus bar. 3,519,732, 7-7-70, Cl. 174-156.

Close, John F. C.; and Williams, Roy A., to Unisearch Limited. Piston unit. 3,527,386, 9-8-70, Cl. 222-50.

Closmann, Philip J., to Shell Oil Company. Method for fracturing a subterranean earth formation. 3,547,196, 12-15-70, Cl. 166-281.

Closmann, Philip J.; and Nordgren, Ronald P., to Shell Oil Company. Method of producing shale oil from a subterranean oil shale formation. 3,501,201, 3-17-70, Cl. 299-4.

Closmann, Philip J.: *See—*
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Closner, John J., to Preload Company, The. Cryogenic storage structure. 3,488,972, 1-13-70, Cl. 62-45.

Closson, Addison W., Jr. Technique for making box toes and counters. 3,546,795, 12-15-70, Cl. 36-1.

Closure Corporation: *See—*
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Clotfelter, Wayman N.; and Bakston, Benjamin F., to United States of America, National Aeronautics and Space Administration. Apparatus for the determination of the existence or non-existence of a bonding between two members. 3,531,982, 10-6-70, Cl. 73-67.2

Cloud, Charles E., to Cloud Machine Corporation. Apparatus for packaging individual units. 3,490,199, 1-20-70, Cl. 53-202.

Cloud, Charles E., to Cloud Machine Corporation. Packaging machine. 3,505,776, 4-14-70, Cl. 53-51.

Cloud, Charles E.; and Cloud, Donald E., to Cloud Machine Corporation. Method of and apparatus for providing a spout-like discharge for a sealed package. 3,505,778, 4-14-70, Cl. 53-180.

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Cloud, Charles E.; and Cloud, Donald E.,3,505,778.

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Cloud Machine Corporation: *See—*
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Cloud, Charles E.; and Cloud, Donald E., 3,505,778.

Cloud, Robert W., to High Voltage Power Corporation. High voltage termination apparatus for high voltage cables and pipe-type transmission lines. 3,539,703, 11-10-70, Cl. 174-19.

Clough, Donald Keighley, to Sandoz Ltd., a/k/a Sandoz A.G. Dyeing or printing synthetic polyamide materials and the materials dyed or printed by this process. 3,502,421, 3-24-70, Cl. 8-4.

Clough, Donald S., to United Aircraft Corporation. Nozzle actuation system. 3,519,207, 7-7-70, Cl. 239-265.41

Clough, Thomas J., to Atlantic Richfield Company. Addition polymerization process. 3,539,603, 11-10-70, Cl. 260-407.

Clough, Thomas J.; and Young, David W., to Sinclair Research, Inc. Tripolymer of styrene or indene, butadiene and a normal alpha-olefin having 10 to 24 carbon atoms. 3,511,886, 5-12-70, Cl. 260-669.

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Clouse, Jerry A.; Gates, Marvin A.; and Parks, John H., to Caterpillar Tractor Company. Minimum-maximum governor with midrange regulation. 3,532,082, 10-6-70, Cl. 123-140.

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Cloutier, Nelson Joseph: *See—*
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Clover: *See—*
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Clower, John C.; and Music, William A., to Schwien Engineering, Inc. System for determining the difference in capacitance of two capacitors. 3,497,801, 2-24-70, Cl. 324-60.

Clua, Jorge Borguno: *See—*
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Cluett, Peabody & Co., Inc.: *See—*
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Clupak, Inc.: *See—*
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Clupper, Harold E., to International Telephone and Telegraph Corporation. Punched tape drive and control system. 3,521,801, 7-28-70, Cl. 226-95.

Cluskey, James R.: *See—*
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Clutsom-Penn International Limited: *See—*
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Clutterbuck, Roy G.; and Edelson, Roger H., to Hughes Aircraft Company. Wear weighting function generator for the determination of the proper aimine of a gun. 3,538,318, 11-3-70, Cl. 235-193.

Clyce, Thomas E.: *See—*
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Clyde Blowers Limited: *See—*
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Clyde Corporation, The: *See—*
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Clyne, Robert W. Waste handling apparatus. 3,511,383, 5-12-70, Cl. 210-526.

Clyne, Robert W. Tank discharging conveyor. 3,515,260, 6-2-70, Cl. 198-154.

Clyne, Robert W. Product handling apparatus. 3,536,201, 10-27-70, Cl. 210-526.

CMI Corporation: *See—*
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Cnudde, Georges M.; and Hutchinson, Robert O., to Lockheed Missiles & Space Company. Space craft reentry blackout recorder. 3,508,230, 4-21-70, Cl. 340-174.1

C/O Prentice Hall Corporation System, Inc.: *See—*
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Coachella Valley Organic Fertilizer Co.: *See—*
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Coackley, Peter, to Motherwell Bridge and Engineering Company Limited, The. Dewatering of sludge. 3,506,562, 4-14-70, Cl. 204-300.

Coad, Brian C., to Texas Instruments, Incorporated. Cladding method and apparatus. 3,502,499, 3-24-70, Cl. 117-101.

Coal Industry (Patents) Limited: *See—*
Alford, Derek, 3,550,959.
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Coal Tar Research Association, The: *See—*
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Coalite and Chemical Products Limited: *See—*
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Coast Elevator Company: *See—*
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Coast, Geoffrey: *See—*
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Coast Metals, Inc.: *See—*
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Coates, Alfred E.: *See—*
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Coates Brothers & Company Limited: *See—*
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Coates, Harold J.: *See—*
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Coates, Herbert W.: *See—*
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Coates, Herbert W., to Celanese Corporation. Needled fibrous batting and method of making the same. 3,523,059, 8-4-70, Cl. 161-141.

Coates, John S., to Du Pont de Nemours, E. I., and Company. Polypropylene-hydrolyzed ethylene/vinyl ester copolymer blends. 3,524,905, 8-18-70, Cl. 260-897.

Coates, John S.; Dunion, Paul F., Jr.; and Taukamoto, Akira, to Du Pont de Nemours, E. I., and Company. Polymeric hydrocarbon resin-hydrolyzed ethylene/ vinyl ester copolymer blends. 3,549,727, 12-22-70, Cl. 260-897.

Coates, Leslie James: *See—*
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Coates, Nicholas F., to Rockwell Manufacturing Company. Weld end fittings. 3,506,285, 4-14-70, Cl. 285-173.

Coates, Robert M. Binning method and apparatus. 3,550,347, 12-29-70, Cl. 53-35.

Coates, Roy Victor; Curtis, Murray Francis; Harris, Gordon John; and Smith, Peter, to Fisons Fertilizers Limited. Prilling process for the manufacture of granules of materials adapted for fertilizers or other uses. 3,533,776, 10-13-70, Cl. 71-28.

Coats, Carlton E.; and Nordstrom, John David, to Ashland Oil & Refining Company. Carboxyl-containing ethers of amino-triazine/aldehyde condensates. 3,519,627, 7-7-70, Cl. 260-249.6

Coats Company, Inc, The: *See—*
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Strang, Elmer J.; White, David V.; and Sorenson, Billy L., 3,493,030.

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Coats, Edward, to Noble Manufacturing Company. Universal mounting for tools. 3,502,157, 3-24-70, Cl. 172-741.

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Cobarg, Claus C.; and Hofmann, Hans W., to Braun Aktiengesellschaft. Method of and means for igniting combustible mixtures. 3,533,719, 10-13-70, Cl. 431-267.

Cobb, Bernie J.; and Honeycutt, John H., to United States of America, Army. Stress corrosion measurement apparatus. 3,504,535, 4-7-70, Cl. 73-86.

Cobb, Clifford Earl: *See—*
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Cobb, Edward L.: *See—*
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Cobb, Raymond L., to Phillips Petroleum Company. Amino-substituted mercapto compounds and their preparation by the reaction of aminothiosulfuric acids and aziridines and subsequent hydolysis. 3,502,727, 3-24-70, Cl. 260-584.

Cobb, Raymond L., to Phillips Petroleum Company. Benzyloxy compounds and epoxy derivatives thereof. 3,527,773, 9-8-70, Cl. 260-348.

Cobb, Raymond L.: *See—*
Reinert, Andrew J.; Cantrel, Kenneth E.; and Cobb, Raymond L.,3,524,003.

Cobban, Robert F.; and Gordon, Herman B., to Rogers Corporation. Electrical connector. 3,509,520, 4-28-70, Cl. 339-176.

Cobble Company Limited: *See—*
Ishii, Teruji, 3,504,525.

Cobbledick, David S., to Allied Chemical Corporation. Non-cellular rapidly gelled polyurethane compositions. 3,492,255, 1-27-70, Cl. 260-18.

Cobbs, Ansalem O., to Cobbs Manufacturing Company. Motor vehicle door guard. 3,550,951, 12-29-70, Cl. 296-152.

Cobbs, James H.; and Kline, Albert K., said Cobbs assor. to Fenix & Scisson, Inc. Packer. 3,525,393, 8-25-70, Cl. 166-187.

Cobbs, James H.; and Scisson, Sidney E., to Fenix & Scisson, Inc. Method of sealing a cavern having anhydrous ammonia stored therein during removal or insertion of pumping devices. 3,530,674, 9-29-70, Cl. 61-0.5

Cobbs, James H.: *See—*
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Cobbs Manufacturing Company: *See—*
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Coben, Gerald J. Rectal thermometer. 3,490,287, 1-20-70, Cl. 73-371.

Coberly, Clarence J.; and Brown, Francis Barton, to Kobe, Inc. Friction-type joint with stress concentration relief. 3,494,640, 2-10-70, Cl. 285-115.

Coberly, Clarence J.; and Brown, Francis Barton, to Kobe, Inc. Friction-type joint with different moduli of elasticity. 3,494,642, 2-10-70, Cl. 285-329.

Coberly, Clarence J.; and Brown, Francis Barton, to Kobe, Inc. Friction-type rod joint. 3,508,773, 4-28-70, Cl. 287-108.

Cobine, James D.; and Lafferty, James M., to General Electric Company. Vacuum device gas measurement apparatus and method. 3,495,165, 2-10-70, Cl. 324-33.

Cobley, David Noel, to BTR Industries Limited. Composite elastomeric springs. 3,489,402, 1-13-70, Cl. 267-1.

Coblitz, Sanford E.: *See—*
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Coblitz, Sanford E. Cam-chain means for cutting pipe. 3,487,543, 1-6-70, Cl. 30-100.

Coblitz, Sanford E. Cutting system means for severing a pipe. 3,540,640, 11-17-70, Cl. 225-103.

Coburn, Arthur E., to Scott & Fetzer Company, The. Regenerating mixed bed anion and cation echange resins. 3,527,718, 9-8-70, Cl. 260-2.1

Coburn, Herber D.; and Kelly, Gilbert H., to Texas Instruments, Incorporated. Seismic wave generator having adjustable reaction force and method of operation thereof. 3,516,509, 6-23-70, Cl. 181-0.5

Coburn, Herbert D.; Johnston, Roy C.; and Kelly, Gilbert H., to Texas Instruments, Incorporated. Seismic wave generating system. 3,516,510, 6-23-70, Cl. 181-0.5

Coburn, Kenneth E.: *See—*
Augustin, Eugene H.; Coburn, Kenneth E.; and Greenler, Robert J.,3,492,108.

Coburn Manufacturing Company, Inc.: *See—*
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Suddarth, Jack M.; and Gray, Dolph L., 3,514,141.

Coca-Cola Company, The: *See—*
Wakefield, Harold Donavon, 3,517,875.
Wakefield, Harold Donavon, 3,533,807.
Wakefield, Harold Donavon, 3,542,566.

Cocca, Theodore A., to United States of America, Navy. Miniature electrical contact with legs of differing mass, thickness or length for connector or switch structure. 3,551,613, 12-29-70, Cl. 200-16.

Coccia, Rudolph A., to Westinghouse Air Brake Company. Voltage range limiting circuitry means. 3,546,573, 12-8-70, Cl. 323-96.

Cocco, Eugene R., to Bell Telephone Laboratories, Incorporated. Connector including a visual indicator. 3,500,293, 3-10-70, Cl. 339-113.

Coccoli, Joseph D.; and Lawson, John R., to Massachusetts Institute of Technology. Gas ring laser using oscillating radiation scattering sources within the laser cavity. 3,533,014, 10-6-70, Cl. 331-94.5

Cocherell, Francis E.; and Cocherell, Richard B. Dental apparatus. 3,524,676, 8-18-70, Cl. 297-188.

Cocherell, Richard B.: *See—*
Cocherell, Francis E.; and Cocherell, Richard B.,3,524,676.

Cochin, Ira, to Bendix Corporation, The. Combination gyroscope and accelerometer. 3,540,293, 11-17-70, Cl. 74-5.

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Cochran, Alfred S., to Automatic Electric Laboratories, Inc. Continuity fault detection. 3,538,268, 11-3-70, Cl. 179-175.25

Cochran, Alfred S.; and Vande Wege, John R., to Automatic Electric Laboratories, Inc. Sequence step check circuit. 3,536,902, 10-27-70, Cl. 235-153.

Cochran and Company: *See—*
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Cochran, Charles Norman; and Ray, Richard C., to Aluminum Company of America. Production of reinforced composites. 3,547,180, 12-15-70, Cl. 164-61.

Cochran, David S., to Hewlett-Packard Company. Converter employing a diode for logarithmically converting current to voltage. 3,517,199, 6-23-70, Cl. 250-214.

Cochran, David S., to Hewlett-Packard Company. Power supply having incrementally related high voltage outputs. 3,522,516, 8-4-70, Cl. 321-15.

Cochran, Donald J. Bushing terminal guard. 3,510,568, 5-5-70, Cl. 174-5.

Cochran, Earl V.: *See—*
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Cochran, Gary Don; and Kay, Irvin W., to Conductron Corporation. Device for removing the effect of blurring in photography. 3,512,464, 5-19-70, Cl. 95-11.

Cochran, James E.: *See—*
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Cochran, John Maxcy, Jr.: *See—*
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Cochran, Kenneth C.: *See—*
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Cochran, Larry A., to RCA Corporation. Circuit for eliminating spurious modulation of the subcarrier frequency oscillator in a color television receiver. 3,541,241, 11-17-70, Cl. 178-5.4

Cochran, Linden Wayne, to Multi-Minerals Limited. Phosphoric acid. 3,494,735, 2-10-70, Cl. 23-165.

Cochran, Linden Wayne, to Multi-Minerals Limited. Acid regeneration. 3,540,860, 11-17-70, Cl. 23-338.

Cochran, Linden Wayne, to Multi-Minerals Limited. Gas sparging mechanism. 3,550,917, 12-29-70, Cl. 261-121.

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Hackett, Norman H., 3,503,473.

Cochran, Thomas J.; and Formichelli, Joseph C., to International Business Machines Corporation. Positioning apparatus. 3,503,272, 3-31-70, Cl. 74-89.15

Cochran Western Corporation: *See—*
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Cochran, William W.: *See—*
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Cochrane, Robin A.: *See—*
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Cochrane, Thomas J., Jr., to Du Pont de Nemours, E. I., and Company. Process and apparatus for providing uniform temperature dry-spinning. 3,509,244, 4-28-70, Cl. 264-40.

Cochrum, Kenneth L.; and Kenneday, John W., to Esso Production Research Company. Well control during drilling operations. 3,503,445, 3-31-70, Cl. 166-244.

Cockbain, Alan Gray, to Plessey Company Limited, The. Resistors. 3,539,392, 11-10-70, Cl. 117-227.

Cockbain, Ernest Gordon, to Natural Rubber Producers Research Association, The. Synthetic rubber latices. 3,488,309, 1-6-70, Cl. 260-23.7

Cocke, John; Freiman, Charles V.; and Homan, Merle E., to International Business Machines Corporation. High speed division system. 3,527,930, 9-8-70, Cl. 235-160.

Cocker, John, III. Adaptor and beam assembly. 3,497,156, 2-24-70, Cl. 242-118.4

Cocker Machine & Foundry Company: *See—*
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Cockerell, Christopher Sydney, to Hovercraft Development Limited. Vehicle for travelling over land and/or water. 3,495,679, 2-17-70, Cl. 180-118.

Cockerell, Christopher Sydney, to Hovercraft Development Limited. Gas-cushion vehicles with wave restraining means for operation over water. 3,500,947, 3-17-70, Cl. 180-116.

Cockerell, Christopher Sydney, to Hovercraft Development Limited. Flexible current collector for vehicles. 3,526,731, 9-1-70, Cl. 191-49.

Cockerham, Lloyd E., to Commercial Solvents Corporation. Phenolic resin coating and process of coating. 3,517,082, 6-23-70, Cl. 260-840.

Cockerham, Robert George; and Yarwood, Thomas Alan, to Gas Council, The. Catalytic treatment of hydrocarbons. 3,515,527, 6-2-70, Cl. 48-214.

Cockerill-Ougree-Providence: *See—*
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Martelee, Ghislain Antoine Jean-Marie, 3,503,528.

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Cockrell, Snaford Charlton; and Dorgan, Robert John, to General Electric Company. Hydromechanical transmission. 3,489,036, 1-13-70, Cl. 74-687.

Cockrell, Susan Lorene, to Long, Harry L., Sr. Animal housing. 3,496,912, 2-24-70, Cl. 119-19.

Cockroft, James B., to Oster, John, Manufacturing Co. Control means for blender or the like. 3,548,280, 12-15-70, Cl. 318-443.

Cocks, George G., to Battelle Development Corporation, The, mesne. Apparatus for determining corneal curvature and the like. 3,536,384, 10-27-70, Cl. 351-6.

Coda, Nello, to Erie Technological Products, Inc. Spark gap. 3,546,538, 12-8-70, Cl. 317-61.

Coda, Severina: *See—*
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Codex Corporation: *See—*
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Mallina, Rudolph F., 3,515,139.

Cody, David L.: *See—*
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Cody, Tommy Dale, to Texas Instruments, Incorporated. Method of and apparatus for removing wire pigtails. 3,545,661, 12-8-70, Cl. 225-1.

Coe, Benjamin F.: *See—*
Allen, Eugene S.; and Coe, Benjamin F.,3,503,937.

Coe, Everett L., Jr. Precipitator control apparatus. 3,504,479, 4-7-70, Cl. 55-2.

Coe, Everett L., Jr.: *See—*
Archer, William E.; and Coe, Everett L., Jr.,3,527,022.

Coe, James H.: *See—*
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Coe Laboratories: *See—*
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Coe Manufacturing Company, The: *See—*
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Coe, Noel N.: *See—*
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Coe, Paul Leslie; and Tatlow, John Colin, to Imperial Smelting Corporation (N.S.C.) Limited. Polyfluoro nitro aromatic compounds. 3,524,879, 8-18-70, Cl. 260-515.

Coe, Richard H., to Shell Oil Company. Steam-oxygen activation of nickel-molybdenum catalysts. 3,519,573, 7-7-70, Cl. 252-439.

Coe, Richard T.: *See—*
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Coe, Stanley H.: *See—*
Stein, Robert R.; and Coe, Stanley H.,3,545,833.

Coe, Thomas D., to Wakefield Engineering Co., Inc. Heat transfer apparatus for cooling semiconductor components. 3,522,491, 8-4-70, Cl. 317-234.

Coen, Aldo L., to RCA Corporation. Oval loudspeaker basket. 3,494,444, 2-10-70, Cl. 181-31.

Coen, Aldo L., to Alpha Products, Inc. Method of fabricating expanded metal products, such as speaker baskets. 3,497,928, 3-3-70, Cl. 29-6.1

Coen Company: *See—*
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Coen, Richard T., to Singer-General Precision, Inc. Electronic system for varying fog simulation with changes in direction of sight. 3,524,019, 8-11-70, Cl. 178-6.8

Coenen, Cyril B.: *See—*
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Coenen, Willem Frans, Sr. Swiftly releasable locking device, especially adapted to fasten the free end of a safety to a fixed support. 3,525,130, 8-25-70, Cl. 24-230.

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Coes, Loring, Jr., to Norton Company. Fused zirconia-spinel abrasives and articles made therewith. 3,498,769, 3-3-70, Cl. 51-298.

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Cofer, Daniel B., to Southwire Company. Method of hot-forming continuously cast aluminum. 3,517,537, 6-30-70, Cl. 72-234.

Cofer, Daniel B.: *See—*
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Coffee, Thomas A. Laser generator having cathode- luminescent pumping light source. 3,493,886, 2-3-70, Cl. 331-94.5

Coffey, Francis T., Sr. Magnetically indexed spinner. 3,492,001, 1-27-70, Cl. 273-141.

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Coffey, Peter E.; and Rich, Theodore A., to General Electric Company. Gas conversion apparatus and method for producing nuclei condensation. 3,522,431, 8-4-70, Cl. 250-43.5

Coffey, Robert Stevenson, to Imperial Chemical Industries Limited. Decomposition of formic acid. 3,488,383, 1-6-70, Cl. 260-499.

Coffey, Robert Stevenson, to Imperial Chemical Industries Limited. Process for the preparation of an organic silicon compound by reacting in the presence of a rhodium catalyst. 3,546,266, 12-8-70, Cl. 260-448.2

Coffield, Thomas H., to Ethyl Corporation. Preparation of formic acid salts. 3,493,610, 2-3-70, Cl. 260-542.

Coffield, Thomas H., to Ethyl Corporation. Fuel Cell including pentacyanocobaltate-containing electrolyte and method for producing electricity. 3,530,004, 9-22-70, Cl. 136-86.

Coffin, David Painter, Jr., to Versitron, Inc., mesne. Signal coupling device. 3,548,200, 12-15-70, Cl. 307-89.

Coffin, Louis F., Jr.: *See—*
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Coffin, Spencer S.; and Mance, Robert J., to International Business Machines Corporation. Contacts for reed switches. 3,495,061, 2-10-70, Cl. 200-166.

Coffman, John A.; and Browne, William R., to General Electric Company. Process of dimerizing carboxylic acids in a corona discharge. 3,533,932, 10-13-70, Cl. 204-167.

Coffman, Kenneth W.; Stevens, John W.; and Jones, Rupert D., to Hughes Tool Company. Safety improvements in cam-and-spring operated impact tool. 3,513,918, 5-26-70, Cl. 173-119.

Coffman, Moody L. Traffic flow control system. 3,533,062, 10-6-70, Cl. 340-40.

Coffman, Paul M., to Shell Oil Company. Hot plate billet heater and method of heating. 3,502,310, 3-24-70, Cl. 263-6.

Coffman, Paul M., to Shell Oil Company. Solid state forming of plastics. 3,532,786, 10-6-70, Cl. 264-292.

Coffman, William H., Jr., to Lewbill Industries Inc. Mist-producing device. 3,515,348, 6-2-70, Cl. 239-103.

Cofoid, Robert D.: *See—*
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Cofran, Louis L. R.: *See—*
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Cogar, George R., to Mohawk Data Sciences Corporation. Asynchronous shift register with data control gating therefor. 3,510,680, 5-5-70, Cl. 307-221.

Cogar, George R., to Mohawk Data Sciences Corporation. Reverse write and forward verify read of a variable length data record. 3,550,103, 12-22-70, Cl. 340-179.1

Cogar, George R.; Sekse, Torkjell; Banziger, Walter; Ming, Joseph W.; and Horvath, Laszlo, to Mohawk Data Sciences Corporation. Audible action and alarm circuit. 3,541,548, 11-17-70, Cl. 340-384.

Cogdill, Cletus V. Hanger structure. 3,518,421, 6-30-70, Cl. 240-85.

Coggburn, Harley L.: *See—*
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Coggins, Leslie Harriman, to Coggins, J. B., Mfg. Co. Toilet seat and cover hinges. 3,506,983, 4-21-70, Cl. 4-236.

Coghill, James T., to Black Clawson Company, The. Fountain coater. 3,521,602, 7-28-70, Cl. 118-410.

Coglaiti, Joseph S., Jr.; and Dallman, John N., to Stauffer Chemical Company. Process for making soda ash substantially free from organics. 3,528,766, 9-15-70, Cl. 23-63.

Cognitronics Corporation: *See—*
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Cohart Refractories Company: *See—*
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Cohen, Abraham B., to LTV Ling Altec, Inc. Explosion-proof acoustic device. 3,497,638, 2-24-70, Cl. 179-115.

Cohen, Abraham Bernard; and Heiart, Robert Bernard, to Du Pont de Nemours, E. I., and Company. Machine for making resist images. 3,547,730, 12-15-70, Cl. 156-345.

Cohen, Allen I.: *See—*
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Cohen, Arnold B.: *See—*
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Cohen, Barry G., to Bell Telephone Laboratories, Incorporated. Hyperabrupt P-N junctions in semiconductors by successive double diffusion of impurities. 3,493,443, 2-3-70, Cl. 148-175.

Cohen, Barry G., to Bell Telephone Laboratories, Incorporated. Semiconductor diode counting apparatus. 3,510,693, 5-5-70, Cl. 307-287.

Cohen, Bernard: *See—*
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Cohen, Bernard, to FMC Corporation. Peroxydiphosphate compounds. 3,547,580, 12-15-70, Cl. 23-106.

Cohen, Bernard; and Mucenieks, Paul R., to FMC Corporation. Cell with peroxydisulfate depolarizer. 3,532,552, 10-6-70, Cl. 136-100.

Cohen, Bernard; and Mucenieks, Paul R., to FMC Corporation. Cell with peroxymonosulfate depolarizer. 3,532,554, 10-6-70, Cl. 136-100.

Mucenieks, Paul R.; Cohen, Bernard; and Darbee, Leonard R.,3,532,553.

Shepherd, John A.; Cohen, Bernard; and Darbee, Leonard R.,3,547,907.

Cohen, David, to Whirlpool Corporation. Filter apparatus. 3,499,536, 3-10-70, Cl. 210-391.

Cohen, Edwin Jacques. Building apparatus and method. 3,530,622, 9-29-70, Cl. 52-86.

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Gadekar, Shreekrishna Manmohan; Johnson, Bernard Dean; and Cohen, Elliott,3,526,633.

Cohen, Felix, to Colorado Paper Products Corporation, The. Self-sustaining paper-type laminar tubing. 3,548,883, 12-22-70, Cl. 138-143.

Cohen, George R., to Standard Pressed Steel Co. Method of making bolt. 3,517,402, 6-30-70, Cl. 10-27.

Cohen, Harvey J.: *See—*
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Cohen, Harvey M.; and Gardner, Ross, to National Research Corporation. Method of sealing vacuum-deposited metal coatings. 3,489,593, 1-13-70, Cl. 117-71.

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Cohen, Howard J.; and Juggins, John E., to SCM Corporation. Process for separating solid phase by product ammonium halide or amine hydrohalide from particulate organometallic compounds. 3,539,604, 11-10-70, Cl. 260-429.5

Cohen, Howard. Dental apparatus. 3,513,546, 5-26-70, Cl. 32-59.

Cohen, Hyman L.: *See—*
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Cohen, Hyman L.; and Minsk, Louis M., to Eastman Kodak Company. Novel polymers containing quaternary ammonium groups. 3,488,706, 1-6-70, Cl. 96-29.

Cohen, Joseph: *See—*
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Mercier, Henri Antoine; and Cohen, Joseph,3,512,926.

Cohen, Julius G. Educational device. 3,541,702, 11-24-70, Cl. 35-9.

Cohen, Julius, to General Telephone & Electronics Laboratories, Incorporated. Tunnel emission photodetector having a thin insulation layer and a P-type semiconductor layer. 3,493,767, 2-3-70, Cl. 250-211.

Cohen, Kenneth W., to Bailey Meter Company. Multiple input fluid element. 3,515,160, 6-2-70, Cl. 137-81.5

Cohen, Lawrence R.: *See—*
Yui, Naoyuki Henry; and Cohen, Lawrence R.,3,524,796.

Cohen, Leon Erwin: *See—*
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Cohen, Leonard; and Gregory, William T., to United States of America, Army. Aluminum soap thickeners with surface active agents. 3,539,311, 11-10-70, Cl. 44-7.

Cohen, Leonard: *See—*
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Rubinstein, Richard B.; Cohen, Leo; and Tetik, Attila,3,536,936.

Cohen, Martin B. Musical instrument. 3,521,518, 7-21-70, Cl. 84-402.

Cohen, Martin G.: *See—*
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Cohen, Martin J., to Franklin Gno Corporation. Sampling apparatus for use with chemical processes and the like. 3,526,137, 9-1-70, Cl. 73-422.

Cohen, Marvin P.: *See—*
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von Strandtmann, Max; Cohen, Marvin P.; and Shavel, John, Jr.,3,518,272.

Von Strandtmann, Max; Cohen, Marvin P.; and Shavel, John, Jr.,3,534,045.

Von Strandtmann, Maximilian; Cohen, Marvin P.; and Shavel, John, Jr.,3,518,273.

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Cohen, Morris, to Loral Corporation. Coaxial band rejection filter with helical line center. 3,504,305, 3-31-70, Cl. 333-24.1

Cohen, Nathan; Eckenrode, James H.; and Brashear, Donald W., to Hamilton Watch Company. Contact index system. 3,505,805, 4-14-70, Cl. 58-28.

Cohen, Olivier: *See—*
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Cohen, Paul P. Mattress. 3,521,311, 7-21-70, Cl. 5-345.

Cohen, Raymond. Extrusion screw as well as extrusion machines provided with a screw in accordance with or similar to the invention. 3,499,187, 3-10-70, Cl. 18-12.

Cohen, Richard L., to Bendix Corporation, The. Aircraft flight position display instrument. 3,505,640, 4-7-70, Cl. 340-24.

Cohen, Robert, to Triumph Industries, Inc. Furniture construction and method of making. 3,550,981, 12-29-70, Cl. 312-198.

Cohen, Robert; Couleur, John F.; and Ruth, Richard L., to General Electric Company. Data processing system including means for interrupting a program being executed. 3,523,283, 8-4-70, Cl. 340-172.5

Cohen, Roger: *See—*
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Cohen, Roger, to International Telephone and Telegraph Corporation. Idle test circuits for folded networks. 3,510,599, 5-5-70, Cl. 179-18.

Cohen, Roy M., to International Dryer Corporation. Electrically actuated security system. 3,514,611, 5-26-70, Cl. 250-208.

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Cohen, Saul M.: *See—*
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Young, Raymond H., Jr.; Cohen, Saul M.; Markhart, Albert H.; and Serlin, Irving,3,503,779.

Young, Raymond H., Jr.; Cohen, Saul M.; Markhart, Albert H.; and Serlin, Irving,3,506,470.

Cohen-Seat, Gilbert. Apparatus for indicating the reaction of a subject. 3,528,074, 9-8-70, Cl. 346-104.

Cohen, Seymour, 1/3 to Schott, Richard, and 1/3 to Wachtel, Arthur. Illuminated gearshift selector. 3,524,979, 8-18-70, Cl. 240-2.

Cohen, Sidney: *See—*
Shay, Edward Griffin; and Cohen, Sidney,3,501,467.

Cohen, Sidney; Gulakowski, Thaddeus A.; and Adams, Phillip, to Millmaster Onyx Corporation. Process of making permanent-press fabrics and garments. 3,497,471, 2-24-70, Cl. 260-70.

Cohen, Sidney; and Schlesinger, Morton, to Millmaster Onyx Corporation. Alkyl carbamate/isopropyl carbamate formaldehyde resin compositions and the modification of fabrics therewith. 3,548,427, 12-22-70, Cl. 8-115.6

Cohen, Stanley I.: *See—*
Zocco, Natale C.; and Cohen, Stanley I.,3,506,600.

Cohen, Stephen D.: *See—*
Mills, Ivor W.; and Cohen, Stephen D.,3,533,953.

Cohen, Theodore A.; and Riordan, Hugh E., to Singer-General Precision, Inc. Simplified integrating motor. 3,539,921, 11-10-70, Cl. 324-93.

Cohen, Theodore J. Method of taking dental impressions. 3,548,500, 12-22-70, Cl. 32-17.

Cohen, Theodore: *See—*
Lewin, Anita H.; and Cohen, Theodore,3,547,978.

Cohen, Werner Victor; and Kissa, Erik, to Du Pont de Nemours, E. I., and Company. Polymeric fugitive azo dyes derived from methacrylate alkyl ester, methacrylic acid and a dye monomer containing sulfonic acid groups and a methacryloyl group. 3,507,850, 4-21-70, Cl. 260-160.

Cohen, William D.: *See—*
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Cohler, Edmund U.; and Rubinstein, Harvey, to Sylvania Electric Products, Inc. Magneto-sonic correlator apparatus. 3,495,227, 2-10-70, Cl. 340-174.

Cohler, Edmund U.; and Rubinstein, Harvey, to Sylvania Electric Products, Inc. Magnetic thin film memory apparatus. 3,508,215, 4-21-70, Cl. 340-174.

Cohly, Mauj A., to Tee-Pak, Inc. Aluminum tannage of edible collagen casing. 3,525,628, 8-25-70, Cl. 99-176.

Cohly, Mauj A.; and Sanner, James W., to Tee-Pak, Inc. Extrusion of microporous collagen articles. 3,512,997, 5-19-70, Cl. 99-175.

Cohly, Mauj A.; and Sanner, James W., to Tee-Pak, Inc. Phosphate glutaraldehyde tanning of edible collagen casing. 3,533,809, 10-13-70, Cl. 99-176.

Cohn, Alfred. Clip-on adapter for vending machines. 3,495,738, 2-17-70, Cl. 221-270.

Cohn, Diter. Electric fluid heater. 3,541,304, 11-17-70, Cl. 219-374.

Cohn, Eugene; and Catallo, Frank, to Samcoe Holding Corporation. Apparatus for distending web materials. 3,494,011, 2-10-70, Cl. 26-63.

Cohn, George I. Electric field intensity indicator employing a vibratory conductor sensor. 3,522,531, 8-4-70, Cl. 324-72.

Cohn, H. Marvin. Encapsulated life jacket. 3,545,017, 12-8-70, Cl. 9-342.

Cohn, Harold J. Bulk nail pan for automatic nailing machine. 3,502,192, 3-24-70, Cl. 198-33.

Cohn, Irving H., to Simmonds Precision Products, Inc. Load limit control. 3,501,955, 3-24-70, Cl. 73-304.

Cohn, Irving H.; and De Nardo, Frank, to Simmonds Precision Products, Inc. Attitude error correction for a fluid gauging system. 3,527,096, 9-8-70, Cl. 73-309.

Cohn, Irving H.; and DeNardo, Frank, to Simmonds Precision Products, Inc. Attitude error correction fluid gauging system employing radiation detectors and error storage techniques. 3,523,186, 8-4-70, Cl. 250-43.5

Cohn, Leonard: *See—*
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Cohn, Robert A.; and Ellis, Sanford. Bristle brush. 3,500,491, 3-17-70, Cl. 15-159.

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Cohrs, William E.: *See—*
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Cojei, Peter: *See—*
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Coker, Cecil H., to Bell Telephone Laboratories, Incorporated. Synthesis of speech from code signals. 3,530,248, 9-22-70, Cl. 179-1.

Coker, Frederick T., Jr., to Ilco Corporation. Magnetic lock. 3,494,157, 2-10-70, Cl. 70-276.

Coker, Frederick T., Jr., to Ilco Corporation. Drug and medicine container. 3,521,936, 7-28-70, Cl. 312-209.

Coker, James O. Lift and carrier. 3,536,220, 10-27-70, Cl. 214-390.

Coker, Lewis R.; and MacKay, Charles A., to United States of America, National Aeronautics and Space Administration. Quick disconnect latch and handle combination. 3,526,382, 9-1-70, Cl. 248-360.

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Dishburger, Henry J.; and Coker, William P.,3,538,024.
Strother, Greene W., Jr.; and Coker, William P.,3,545,130.

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Cola, Rudolph A.; and Gerber, Johannes F., to Burroughs Corporation. Coated configuration and method for prevention of vaporization splattering of thin film surfaces. 3,529,130, 9-15-70, Cl. 219-275.

Colamussi, Dominic J.: *See—*
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Colandrea, Anthony. Outdoor location kit. 3,547,073, 12-15-70, Cl. 116-124.

Colarossi, Lawrence A.; Reiling, Gebhart J., Jr.; Tarquinio, Anthony V.; and James, Thomas S., deceased (by Willis, Joanne Elizabeth; executrix), to Pittsburgh-Des Moines Steel Company. Portable welding apparatus. 3,515,844, 6-2-70, Cl. 219-125.

Colautti, Albert J., to General Motors Corporation. Track structure for seat adjuster. 3,545,716, 12-8-70, Cl. 248-430.

Colautti, Albert J.; and Wink, Howard L., Jr., to General Motors Corporation. Manually operable seat adjuster mechanism. 3,525,496, 8-25-70, Cl. 248-394.

Colavecchio, Robert J., to Elmwood Sensors, Inc. Thermostatic switch for small electrical appliances. 3,496,511, 2-17-70, Cl. 337-343.

Colaw, Marvin E., to Seymour Foods, Inc., mesne. Conveyor and stacker for filler flats. 3,509,995, 5-5-70, Cl. 209-73.

Colbeck, Derek B.; and Purcell, Thomas H., Jr., to ESB Incorporated, mesne. Water activated battery. 3,508,971, 4-28-70, Cl. 136-90.

Colbert, Aaron; and Flanner, Lloyd T., to Allied Chemical Corporation. Aerosol metallic coating formulations with improved resistance to deleafing. 3,488,308, 1-6-70, Cl. 260-23.

Colbert, Clifford, to Singer-Cobble Limited. Tufting machines. 3,548,766, 12-22-70, Cl. 112-79.

Colbert, William H.; and Kraft, Derald H., to Gulf & Western Industrial Products Company, mesne. Drive arrangement for clutch or brake. 3,543,899, 12-1-70, Cl. 192-107.

Colbert, William H.; and Kraft, Derald H., to Gulf & Western Industrial Products Company, mesne. Friction plates for clutches and brakes. 3,543,900, 12-1-70, Cl. 192-107.

Colburn, Charles S., Jr., to Chattem Chemicals, division of Chattem Drug & Chemical Company. Aluminum gel and method of preparing same. 3,497,538, 2-24-70, Cl. 260-448.

Colburn, Charles S., Jr., to Chattem Drug & Chemical Company. Method of making glycine. 3,510,515, 5-5-70, Cl. 260-534.

Colburn, Edward N.; Benson, Henry E.; and Paulson, Rueben E., to Universal Oil Products Company. Self-cleaning screen baskets. 3,491,888, 1-27-70, Cl. 210-380.

Colburn, Edward N.; Benson, Henry E.; and Paulson, Rueben E., to Universal Oil Products Company. Self-cleaning screen basket. 3,542,676, 11-24-70, Cl. 210-380.

Colburn, William A. Atomic Storage Corporation Method of storing toxic fluids and the like. 3,526,279, 9-1-70, Cl. 166-250.

Colby, Edward E.; and O'Neill, David C., to Procter & Gamble Company, The. Protective member for sharp-edged dispensing openings. 3,527,377, 9-8-70, Cl. 220-54.

Colby, James E. System for replacing deteriorated wood piling. 3,505,825, 4-14-70, Cl. 61-54.

Colchagoff, Robert D., to Owens-Illinois, Inc. Glass parison forming with settle blow closing means. 3,536,468, 10-27-70, Cl. 65-208.

Colchester, John Edward, to Imperial Chemical Industries Limited. Non-catalytic preparation of pyridines. 3,492,305, 1-27-70, Cl. 260-290.

Colchester, John Edward; and Entwisle, John Hubert, to Imperial Chemical Industries Limited. Production of tetrahydrobipyridlyls. 3,491,104, 1-20-70, Cl. 260-296.

Colchester, John Edward; and Entwisle, John Hubert, to Imperial Chemical Industries Limited. Process for the separation of N:N'-dialkyl-4:4'- bipyridylium halide salts from N-alkyl pyridinium halide salts by extraction with chloroform. 3,506,677, 4-14-70, Cl. 260-296.

Colchester Lathe Company Limited, The: *See—*
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Colclaser, Robert G., Jr.; and Fischer, William H., to Westinghouse Electric Corporation. Fluid-blast circuit interrupters with piston-driving means and cooperable floating piston with accelerating coil. 3,551,623, 12-29-70, Cl. 200-148.

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Colditz, Werner: *See—*
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Coldren, Charles W.; and Hopkins, Richard G. Planter and fertilizer attachment. 3,512,489, 5-19-70, Cl. 111-34.

Coldwell, John K.: *See—*
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Cole, Austin, III, to Olin Corporation, mesne. Portable foaming system. 3,541,023, 11-17-70, Cl. 252-359.

Cole, Berton A.; and Ruonayaara, Quentin F., to Boeing Company, The. Room temperature storable precatalyzed substrate for laminates. 3,490,936, 1-20-70, Cl. 117-54.

Cole, Brian M.: *See—*
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Cole, Charles F., Jr.; and Richesin, Dorris F., to Continental Oil Company. Sensor control device. 3,535,634, 10-20-70, Cl. 324-103.

Cole, Colin Francis; and Spencer, David John, to British Titan Products Company Limited. Recovery of vanadium values from residues. 3,520,650, 7-14-70, Cl. 23-20.

Cole, David F., to Texas Instruments, Incorporated. Fuel cell comprising foraminous silver electrode having a porous layer of magnesium oxide. 3,505,120, 4-7-70, Cl. 136-86.

Cole, Edward L.; and Hess, Howar V., to Texaco Inc. Treatment of sewage. 3,507,788, 4-21-70, Cl. 210-63.

Cole, Edward L.; Knowles, Edwin C.; and Sensel, Eugene E., to Texaco Inc. Composite silibate-zeolite catalyst. 3,510,422, 5-5-70, Cl. 208-120.

Cole, Edward L.; Wilson, Raymond F.; and Herbstman, Sheldon, to Texaco Inc. Desulfurization of a heavy hydrocarbon fraction. 3,551,328, 12-29-70, Cl. 208-240.

Cole, George Rolland, to Du Pont de Nemours, E. I., and Company. Metalizing compositions fireable in an inert atmosphere. 3,502,489, 3-24-70, Cl. 106-1.

Cole, George S.; and Ritzenthaler, Richard L., to Cole Valve Corporation. Proportioning valve. 3,519,018, 7-7-70, Cl. 137-625.4

Cole, Gerald D.: *See—*
Ruch, David E.; and Cole, Gerald D.,3,493,844.

Cole, Howard W., Jr. True air speed meter with relative wind direction. 3,548,654, 12-22-70, Cl. 73-187.

Cole, Howard W., Jr.: *See—*
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Cole, James B.; and Weiland, Richard H., to Boeing Company, The. Aircraft wing variable camber leading edge flap. 3,504,870, 4-7-70, Cl. 244-42.

Cole, James Harold: *See—*
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Cole, John J.: *See—*
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Piffath, Rodney S.; and Cole, John J.,3,523,006.

Cole, Joseph I.; Mirtin, William C.; and Skala, Stephen F., to Western Electric Company, Incorporated. Control system for regulating of molten metal into a continuously rotated casting wheel. 3,528,479, 9-15-70, Cl. 164-155.

Cole, Lawrence S., to General Electric Company. Prewired address sequencer for successive approximation analog-to-digital converters. 3,550,114, 12-22-70, Cl. 340-347.

Cole, Leon J.: *See—*
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Cole, Louis F., to Union Carbide Corporation. Curable compositions based on oxirane polyepoxides and liquid eutectic mixtures of o-tolylenediamine, m-tolylenediamine, and bis(aminophenyl) methane. 3,546,169, 12-8-70, Cl. 260-47.

Cole, Martin; Doyle, Frank Peter; and Soulal, Maurice John, to Beecham Group Limited. Penicillin ester process and products. 3,528,965, 9-15-70, Cl. 260-239.1

Cole, Martin; and Rolinson, George Newbolt, to Beecham Group Limited. Methyl α-(methylsuccinimido) acrylate. 3,551,448, 12-29-70, Cl. 260-326.3

Cole, Paul Morrison, to Du Pont de Nemours, E. I., and Company. Apparatus and continuous process for producing fibrous sheet structures. 3,493,452, 2-3-70, Cl. 156-254.

Cole, Paul Morrison, to Du Pont de Nemours, E. I., and Company. Method for reducing fiber density and expanding face dimensions of self-supporting sheet structures. 3,540,958, 11-17-70, Cl. 156-164.

Cole, Robert H.; Nissim, Samuel; Podraza, George V.; and Feuer, Robert, to Bunker-Ramo Corporation, The. Digital memory apparatus. 3,518,635, 6-30-70, Cl. 340-173.

Cole, Robert K.: *See—*
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Cole, Robert L., to General Dynamics Corporation. Multiband electronic tuner. 3,509,467, 4-28-70, Cl. 325-452.

Cole, Roy D.; and Rogers, Alexander K., to United States of America, Navy. Bomb ballistic slide rule. 3,533,551, 10-13-70, Cl. 235-89.

Cole, Sam M., to Meredith Corporation. Record card assembly for teaching machines. 3,541,698, 11-24-70, Cl. 35-8.

Cole, Saxon, to American Air Filter Company, Inc. Fluid flow damper arrangement. 3,506,193, 4-14-70, Cl. 236-38.

Cole, Saxon: *See—*
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Cole Steel Equipment Co., Inc.: *See—*
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Cole, Stephen F., Jr. Modularly constructed heating elements for electric furnaces. 3,506,771, 4-14-70, Cl. 13-25.

Cole, Thomas M., to Federal Pacific Electric Company. Blow-open circuit breaker. 3,517,355, 6-23-70, Cl. 335-16.

Cole Valve Corporation: *See—*
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Cole, William G., Jr., to Ferro Corporation. Method of forming glass fibers. 3,518,069, 6-30-70, Cl. 65-2.

Cole, William T., Jr.; and Daubenspeck, Benjamin K., to Remington Arms Company, Inc. Chemiluminescent emergency lighting device. 3,500,033, 3-10-70, Cl. 240-2.25

Cole-Parmer Instrument and Equipment Company: *See—*
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Colea Metals International, Ltd.: *See—*
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Colebourne, Neville, to Imperial Chemical Industries Limited. Production of thiazoles by dehydrogenation and cyclisation of a nitrogenous organic compound with sulphur. 3,501,488, 3-17-70, Cl. 260-302.

Colecchi, Paul, to Dick, A. B., Company. Ink drop writer nozzle. 3,512,172, 5-12-70, Cl. 346-75.

Coleco Industries, Inc.: *See—*
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Colegrove, George T., to Kelco Company. Treatment of xanthomonas hydrophilic colloid and resulting product. 3,516,983, 6-23-70, Cl. 260-209.

Coleman, Arthur A.; and Holland, John M., to North American Rockwell Corporation. Variable geometry nozzle. 3,534,908, 10-20-70, Cl. 239-265.43

Coleman, Benny R. System frequency response analyzer and plotter. 3,505,738, 4-14-70, Cl. 33-1.

Coleman, Charles M. Method and apparatus for fluid handling and separation. 3,508,653, 4-28-70, Cl. 210-83.

Coleman, Clarence B., to Fabricated Metals, Inc. Storage container having a sliding closure. 3,524,567, 8-18-70, Cl. 220-41.

Coleman Company, Inc., The: *See—*
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Coleman, Denis, to American Cyanamid Company. Poly-tris(1-aziridinyl)phosphine oxide sulfide phosphoric acid. 3,517,087, 6-23-70, Cl. 260-926.

Coleman, Donald D.: *See—*
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Coleman Engineering Company, Inc.: *See—*
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Coleman, Harold R., to Tee-Pak, Inc. Method of improving crocking fastness of dyed cellulose sausage casing. 3,539,361, 11-10-70, Cl. 99-176.

Coleman, James J. Waste water heat reclaimer. 3,529,663, 9-22-70, Cl. 165-158.

Coleman, Joe. Trash disposal system for automobiles. 3,500,492, 3-17-70, Cl. 15-313.

Coleman, John F.: *See—*
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Coleman, John R., Jr., to Marathon Oil Company. Recovery and recycle of $TiCl_4$ in processes for the reaction of haloethers with olefins. 3,493,628, 2-3-70, Cl. 260-681.

Coleman, Lester E., to Lubrizol Corporation, The. Films, latices and coatings of N-3-oxohydro- carbon-substituted acrylamide polymers. 3,497,467, 2-24-70, Cl. 260-29.6

Coleman, Lester E., to Lubrizol Corporation, The. Sulfurized diels-alder adducts and lubricants containing the same. 3,498,915, 3-3-70, Cl. 252-47.5

Coleman, Lester E., to Lubrizol Corporation, The. Oil-soluble interpolymers of N-vinylthiopyrrolidones. 3,519,565, 7-7-70, Cl. 252-47.5

Coleman, Lester E., to Lubrizol Corporation, The. Fuel compositions and additives. 3,549,340, 12-22-70, Cl. 44-63.

Coleman, Marvin D.: *See—*
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Coleman, Ralph Arthur: *See—*
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Coleman, Ralph Arthur; Furman, Frank Meritt; and Milionis, Jerry Peter, to American Cyanamid Company. Thiobis indanol and naphthol compounds. 3,522,316, 7-28-70, Cl. 260-609.

Coleman, Richard L.: *See—*
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Coleman, Ross W. Endless path storage system. 3,521,738, 7-28-70, Cl. 198-85.

Coleman, William E., to United States Steel Corporation. Method and apparatus for winding metal strip for open-coil annealing and resulting coil. 3,495,785, 2-17-70, Cl. 242-78.1

Coleman, William E., to United States Steel Corporation. Method of heat treating edges. 3,522,116, 7-28-70, Cl. 148-154.

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Coles, Eric Neville. Apparatus for packing or wrapping articles. 3,507,094, 4-21-70, Cl. 53-183.

Coles, Harold John, to Atomic Power Constructions Limited. Heat exchangers. 3,545,534, 12-8-70, Cl. 165-67.

Coles, John: *See—*
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Coles, Robert F.; Errede, Louis A.; and Miller, Richard A., to Minnesota Mining and Manufacturing Company. Image recording sheet. 3,533,788, 10-13-70, Cl. 96-1.5

Coles, Robert F.; Miller, Richard A.; and Tulagin, Vsevolod, to Minnesota Mining and Manufacturing Company. Organic hydrazone compound containing azo coupler moiety. 3,499,902, 3-10-70, Cl. 260-287.

Coless, Thomas L., to Union Carbide Corporation. Submerged arc welding composition. 3,551,217, 12-29-70, Cl. 148-26.

Coley, Nelson B.; and Rusick, Jack H., to General Signal Corporation. Code communication system. 3,535,681, 10-20-70, Cl. 340-146.1

Coley, Samuel E., to Rotolin Bearings Limited. Guides for die sets. 3,514,166, 5-26-70, Cl. 308-6.

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Colgan, Francis E., to Auto Research Corporation. Porous disc mist condensation fitting. 3,490,561, 1-20-70, Cl. 184-7.

Colgan, Francis E., to Auto Research Corporation. Movable meter-unit restriction. 3,504,697, 4-7-70, Cl. 137-469.

Colgan, Francis E., to Auto Research Corporation. High output mist producing unit. 3,527,411, 9-8-70, Cl. 239-338.

Colgan, James Basil; DiGiugno, Angelo John; and Duggan, Robert James, to Bunker-Ramo Corporation, The. Whole word justification and editing system. 3,550,091, 12-22-70, Cl. 340-172.5

Colgan, Joseph Dennis, to American Cyanamid Company. Process for manufacture of catalyst material and catalyst material produced thereby. 3,519,574, 7-7-70, Cl. 252-451.

Colgate, Stirling A. Apparatus for accelerating rod-like objects. 3,509,821, 5-5-70, Cl. 102-49.3

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Colletti, Joseph F.; and Bugli, Richard F., to United Aircraft Corporation. Free-free beam vibrator. 3,536,940, 10-27-70, Cl. 310-17.

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Collier, Alan R.; and Creagan, Robert J., to Westinghouse Electric Corporation. Safety cooling system for a nuclear reactor. 3,528,884, 9-15-70, Cl. 176-37.

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Collier, Robert J.; and Pennington, Keith S., to Bell Telephone Laboratories, Incorporated. Sampling techniques for holograms. 3,516,721, 6-23-70, Cl. 350-3.5

Collier, Robert J.; and Pennington, Keith S., to Bell Telephone Laboratories, Incorporated. Hologram method and apparatus for recording and reconstructing multicolor images. 3,519,323, 7-7-70, Cl. 350-3.5

Collier, Robert J.; and Pennington, Keith S., to Bell Telephone Laboratories, Incorporated. Holographic method of selectively transmitting changes in a scene. 3,531,589, 9-29-70, Cl. 178-7.2

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Collingwood, George H.; Demas, Harry J.; and Bryant, George F., to Allied Chemical Corporation. Composite muti-color or colorable yarn structures. 3,534,540, 10-20-70, Cl. 57-140.

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Collins, Franklyn M., to Air Reduction Company, Incorporated. Film resistor. 3,488,767, 1-6-70, Cl. 338-300.

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Collins, Henry R., Jr. Head turning apparatus. 3,521,622, 7-28-70, Cl. 128-25.

Collins, James P., to Applied Geodata Systems, Inc. Recalibration means for a transducer. 3,531,979, 10-6-70, Cl. 73-4.

Collins, James, 1/2 to Boyer, Carl. Inflatible pad with alarm. 3,533,095, 10-6-70, Cl. 340-272.

Collins, John F.; Johnston, Howard T., Jr.; Smith, Richard M.; and Walsh, Francis X., Jr., to International Business Machines Corporation. Rota-pak system concept. 3,495,134, 2-10-70, Cl. 317-101.

Collins, John J. Heavy equipment tire repair device. 3,500,891, 3-17-70, Cl. 157-1.2

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Collins, Joseph C., to Sterling Drug Inc.1,1'-Alkylene-bis(3,3-dichloro-2-pyrrolidones). 3,549,654, 12-22-70, Cl. 260-326.3

Collins, Keith Douglas, to Rotax Limited. Spark ignition apparatus. 3,515,937, 6-2-70, Cl. 315-209.

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Collins, Neil Eugene; Kerber, Elwyn W.; and Smith, James M., to General Electric Company. Semiconductor laser having grooves to prevent radiation transverse to the optical axis. 3,531,735, 9-29-70, Cl. 331-94.5

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Collins, Ralph D.; and Willis, Don C., to Spec, Inc. Fluid mixing device. 3,504,702, 4-7-70, Cl. 137-604.

Collins, Raymond Frederick, to May & Baker Limited. Thin layer chromatography method and apparatus. 3,511,775, 5-12-70, Cl. 210-31.

Collins, Raymond L., Jr., to McGraw-Edison Company. Flame monitoring system. 3,514,242, 5-26-70, Cl. 431-79.

Collins, Reginald, to Omal Group Limited. Sheet feeding arrangements for feeding sheets from a stack thereof. 3,533,617, 10-13-70, Cl. 271-39.

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Collins, Robert H.; and Deverse, Frank T., to International Business Machines Corporation. Process for improving photoresist adhesion. 3,549,368, 12-22-70, Cl. 96-35.1

Collins, Terence J., to Tiltman Langley Limited. Selective rotation control. 3,525,176, 8-25-70, Cl. 49-46.

Collins, Timothy F.; and Brubaker, Weldon L., to Berg Electronics, Inc. Terminal applicator. 3,538,581, 11-10-70, Cl. 29-203.

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Collins, William H. Fluid sampler. 3,546,945, 12-15-70, Cl. 73-422.

Collins, William J. Device for sampling molten metal. 3,501,963, 3-24-70, Cl. 73-425.4

Collins, William V. Trailer stabilizer. 3,544,132, 12-1-70, Cl. 280-446.

Collins, Willys Howard, to FMC Corporation. Apparatus for propelling railroad cars and the like. 3,508,499, 4-28-70, Cl. 104-176.

Collinson, James A.; Cook, John S.; and Subramanian, Mahadevan, to Bell Telephone Laboratories, Incorporated. Laser detection of clear air turbulence. 3,540,829, 11-17-70, Cl. 356-129.

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Collis, Ronald T. H., to Standard Research Institute. Visibility indicating system. 3,510,225, 5-5-70, Cl. 356-4.

Collman, Joel; Alvord, Lowell R.; and Tucker, Howard E., to Thiokol Chemical Corporation. Frangible molds. 3,524,618, 8-18-70, Cl. 249-61.

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Colman, John E.; and Maunsell, Richard M. O., to Electric Reduction Company of Canada, Ltd. Bipolar electrolytic cell. 3,489,667, 1-13-70, Cl. 204-268.

Colman, Robert, to General Alarm Corporation. Selected prerecorded telephonic message transmission system dialling plural preselected numbers and dialling a new number if the called number is busy or does not answer. 3,519,745, 7-7-70, Cl. 179-5.

Colombani, Don Pierre Louis Jean, to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation. Composite ramjet/rocket propulsion unit. 3,487,643, 1-6-70, Cl. 60-225.

Colombani, Don Pierre Louis Jean; and Ernst, Adolphe Otton Gontier, to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation. Thrust-vectoring devices for jet engines. 3,548,598, 12-22-70, Cl. 60-231.

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Colombie, Michel; and Foure, Michel, to Compagnie Pour l'Etude la Realisation de Combustibles Atomiques (C.E.R.C.A.). Manufacture of improved nuclear fuels. 3,545,966, 12-8-70, Cl. 75-122.7

Colombo, Angelo. Nine-way valve for inverting cycle providing both a perfect heat pump and a refrigerator pump circuit, and circuit obtained by said valve. 3,527,256, 9-8-70, Cl. 137-625.48

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Colombo, Umberto; Mini, Iti; and Sironi, Giuseppe, to Montecatini Edison S.p.A. Process for purifying pyrite cinders by removal of nonferrous metals. 3,499,754, 3-10-70, Cl. 75-1.

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Colton, Frank B.; Mikulec, Richard A.; and Nicholson, Robert T., to Searle, G. D., & Co. N-(3-Alkoxy-19-norpregna-1,3,5(10),17(20)-tetraen-21-yl)amines and derivatives thereof. 3,536,703, 10-27-70, Cl. 260-239.5

Colton, Frank B.; and Nicholson, Robert T., to Searle, G. D., & Co.Sprio(steroidal-6,1'-cyclopropanes) and process. 3,499,891, 3-10-70, Cl. 260-239.57

Colton, John R.; Sheehan, John R.; and Vachon, Patrick A., to Bell Telephone Laboratories, Incorporated. Gated operational amplifier. 3,497,830, 2-24-70, Cl. 332-9.

Colton, Lewis H. Manufacture of knitted footwear. 3,550,402, 12-29-70, Cl. 66-147.

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Conciatori, Anthony B.; and Smart, Charles L., to Celanese Corporation. Production of shaped polybenzimidazole articles. 3,502,606, 3-24-70, Cl. 260-32.6

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Cone, Clarence D., Jr., to United States of America, National Aeronautics and Space Administration. Minimum induced drag airfoil body. 3,500,020, 3-10-70, Cl. 235-61.6

Cone, Ronald D.; and Dykmans, John A., to Calma Company. Graphical data digitizer. 3,505,670, 4-7-70, Cl. 340-347.

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Conescu, Sidney. Cardboard folding box construction. 3,524,579, 8-18-70, Cl. 229-34.

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Conger, Gary L. Loading dock shelter. 3,528,086, 9-8-70, Cl. 135-5.

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Congleton, Paul C.; and Izumi, Hideki D., to Kaiser Aerospace & Electronics Corporation. Course center line generator for aircraft displays. 3,521,228, 7-21-70, Cl. 340-27.

Congleton, Paul C.; Izumi, Hideki D.; McAfee, Charles L.; and Snyder, Charles K., to Kaiser Aerospace & Electronics Corporation. Display system for providing integrated display of aircraft information. 3,521,227, 7-21-70, Cl. 340-27.

Congleton, Paul C.: *See—*
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Conhagen, Alfred. Centrifugal pump. 3,519,365, 7-7-70, Cl. 415-88.

Conia, Jean-M., to Schering Corporation, mesne. Process for the preparation of cyclic ketones and cyclic aldehydes and products produced thereby. 3,531,504, 9-29-70, Cl. 260-397.4

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Conix, Andre Jan; and Jeurissen, Lambert Gaston, to Gevaert-Agfa N.V. Process for the preparation of polyesters of terephthalic acid and glycols. 3,497,475, 2-24-70, Cl. 260-75.

Conix, Andre Jan; and Jeurissen, Lambert Gaston, to Gevaert-Agfa N.V. Process for the preparation of polyesters of terephthalic acid and glycols. 3,511,811, 5-12-70, Cl. 260-75.

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Conklin, Elmer W. Table support. 3,544,052, 12-1-70, Cl. 248-188.8

Conklin, Glenn E.; and Greenwood, Ivan A., Jr., to Singer-General Precision, Inc. Adjustable filter networks utilizing the effects of magnetic resonance. 3,524,127, 8-11-70, Cl. 324-0.5

Conklin, Harold A., Jr., to Baldwin, D. H., Company. Longitudinal mode tuning of stringed instruments. 3,523,480, 8-11-70, Cl. 84-312.

Conklin, Oran A.: *See—*
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Conklin, Robert M.; and Witucki, Ralph E., to Brunswick Corporation. Golf game. 3,501,152, 3-17-70, Cl. 273-176.

Conkling, William C., to Pennwalt Corporation. Differential pressure-responsive device for measuring fluid flow rate including a shaped spring for square root extraction. 3,521,486, 7-21-70, Cl. 73-205.

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Conley, Hollet E., 1/2 to Ross, Allan F. Centerless grinding machine. 3,537,213, 11-3-70, Cl. 51-103.

Conley, Kenneth E., to Mead Corporation, The. Electrophotographic sheet and methods of printing. 3,547,678, 12-15-70, Cl. 117-34.

Conley, Russell H., Jr., 95% to Quality Food Machinery, Inc., mesne, and 5% to Minder, Clyde A., trustee. Confectionery dispenser. 3,499,586, 3-10-70, Cl. 222-482.

Conlin, Patrick J. Muffler with tangential inlet and outlet nipples. 3,530,953, 9-29-70, Cl. 181-58.

Conlin, Peter; and Myklebust, Paal, to Hankocraft Company. Vaporizer for delivery of vapor to facial area. 3,511,236, 5-12-70, Cl. 128-187.

Conlon, Frank Bernard, to United States of America, Health, Education, and Welfare. Interlocked radium shipping container. 3,549,888, 12-22-70, Cl. 250-108.

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Connell, Thomas R., to Ohio Brass Company, The. Spark gap and discharge control apparatus. 3,496,409, 2-17-70, Cl. 315-36.

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Connelly, Edward M., to Melpar, Inc. Trainable logical element having signal path solidification capabilities. 3,535,693, 10-20-70, Cl. 340-172.5

Connelly, La Vern R., to Eaton Yale & Towne, Inc. Process for treating ferrous surfaces. 3,515,599, 6-2-70, Cl. 148-6.15

Connelly, Robert E.; and Herbetko, Stephen A., to Connelly Containers, Inc. Domed top coffin and blank. 3,490,114, 1-20-70, Cl. 27-2.

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Connor, Mark J., to Gulf & Western Industrial Products Company, mesne. Contour piston and cylinder assembly for spot type brakes and clutches. 3,547,008, 12-15-70, Cl. 92-170.

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Connors, Harold D.; and Buckley, Fred D., to Avco Corporation. Particle separator for engine air inlets. 3,521,431, 7-21-70, Cl. 55-306.

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Conover, Lloyd H., to Pfizer, Chas., & Co., Inc. (Isoxazolyl) (amino)-methyl- tetrahydroanthracenes. 3,524,862, 8-18-70, Cl. 260-307.5

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Conover, Lloyd H.; McFarland, James W.; and Austin, William C., to Pfizer, Chas., & Co., Inc.2-Substituted-2-Δ^2-tetrahydropyrimidines and Δ^2-imidazolines. 3,549,624, 12-22-70, Cl. 260-240.

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Cook, Harold D., to Teletype Corporation. Automatic error detection and correction system. 3,551,886, 12-29-70, Cl. 340-146.1
Cook, Harold E. Truck-mounted lifting device. 3,521,780, 7-28-70, Cl. 214-674.
Cook, Harold L., Jr., to Behoc Corporation. Method and apparatus for sampling refrigerated volatile liquids. 3,487,692, 1-6-70, Cl. 73-421.
Cook, James E.: *See—*
Willardson, Robert K.; Allred, Worth P.; and Cook, James E.,3,496,118.
Cook, Jesse A., 1/2 to Skeen, Leo B. Respiration appliance. 3,503,388, 3-31-70, Cl. 128-28.
Cook, John S.: *See—*
Collinson, James A.; Cook, John S.; and Subramanian, Mahadevan,3,540,829.
Cook, John S., to Bell Telephone Laboratories, Incorporated. Inflatable communications antenna satellite. 3,508,270, 4-21-70, Cl. 343-705.
Cook, John W., to Westinghouse Electric Corporation. Workpiece distribution system. 3,490,621, 1-20-70, Cl. 214-23.
Cook, John W., to Westinghouse Electric Corporation. System for controlling the entry and exit of workpieces into and from a heating furnace. 3,502,234, 3-24-70, Cl. 214-26.
Cook, John W., to Westinghouse Electric Corporation. Apparatus for controlling the flow of a cooling medium onto workpieces. 3,514,984, 6-2-70, Cl. 72-7.
Cook, John W., to Westinghouse Electric Corporation. Slab handling apparatus. 3,532,231, 10-6-70, Cl. 214-8.5
Cook, John W., to Westinghouse Electric Corporation. Method and apparatus for controlling the crop shear of a hot strip mill. 3,538,726, 11-10-70, Cl. 72-7.
Cook, Kenneth George: *See—*
Gowar, John; and Cook, Kenneth George,3,519,882.
Cook, Kenneth J.: *See—*
Horwitz, Norman H.; and Forsaith, Ann L., 3,493,671.
Cook, Leonard; and Davidson, Arnold B., to Smith Kline & French Laboratories. Anti-anxiety compositions and a method of producing anti-anxiety activity with combinations of amobarbital and trifluoperazine. 3,507,960, 4-21-70, Cl. 424-247.
Cook, M L. Fishing rod holder. 3,516,190, 6-23-70, Cl. 43-21.2
Cook Machinery Co., Inc.: *See—*
Willard, Frank E., 3,520,332.
Cook, Melvin Seymour, to Holobeam, Inc. Apparatus for and methods of converting radiant energy patterns into vibratory waves. 3,491,343, 1-20-70, Cl. 340-173.
Cook, Newell C., to General Electric Company. Process for scandiding metals. 3,489,536, 1-13-70, Cl. 29-194.
Cook, Newell C., to General Electric Company. Aluminiding. 3,489,537, 1-13-70, Cl. 29-194.
Cook, Newell C., to General Electric Company. Process for yttriding and rare earthiding. 3,489,538, 1-13-70, Cl. 29-144.
Cook, Newell C., to General Electric Company. Manganiding. 3,489,539, 1-13-70, Cl. 29-194.

Cook, Newell C., to General Electric Company. Process for nickelid-ing, cobaltiding and ironiding base metal compostions. 3,489,540, 1-13-70, Cl. 29-194.

Cook, Newell C., to General Electric Company. Process for vanadid-ing metals. 3,514,272, 5-26-70, Cl. 29-194.

Cook, Newell C.; and Hayes, William J., to General Electric Com-pany. Process for metalliding aluminum surfaces. 3,522,021, 7-28-70, Cl. 29-197.

Cook, Newell C.; Tedmon, Craig S., Jr.; and Hagel, William C., to General Electric Company. Process for lithiding. 3,489,659, 1-13-70, Cl. 204-39.

Cook Paint & Varnish Company: *See—*
Wright, Howard J.; Bremmer, John F.; Bhimani, Nitin; and Fitch, Robert M., 3,501,432.

Cook, Ralph L.: *See—*
Yungblut, Charles W.; Mathison, Victor G.; and Cook, Ralph L.,3,488,618.

Cook, Reginald Kenneth; and Hosegood, Samuel Brittan, to United Kingdom Atomic Energy Authority. Heat exchangers. 3,547,187, 12-15-70, Cl. 165-76.

Cook, Richard L., to Goodyear Tire & Rubber Company, The. Self-closing tube. 3,498,335, 3-3-70, Cl. 138-178.

Cook, Richard L., to Goodyear Aerospace Corporation. Hard faced ceramic and plastic armor. 3,509,833, 5-5-70, Cl. 109-82.

Cook, Richard L., to Goodyear Aerospace Corporation. Hard faced plastic armor. 3,516,898, 6-23-70, Cl. 161-93.

Cook, Richard L., to Goodyear Aerospace Corporation. Puncture re-sistant laminate with crinkled film layer. 3,519,529, 7-7-70, Cl. 161-128.

Cook, Richard L. Fitting for flexible walled receptacle. 3,537,732, 11-3-70, Cl. 285-200.

Cook, Richard L. Method for making puncture resistant material. 3,546,039, 12-8-70, Cl. 156-210.

Cook, Robert C., to United Aircraft Corporation. Antimony pen-tachloride diffusion. 3,532,565, 10-6-70, Cl. 148-189.

Cook, Robert D.; and McHale, Walter T., to Computicket Corpora-tion. Space reservation and ticket printing system. 3,533,084, 10-6-70, Cl. 340-172.5

Cook, Robert G.: *See—*
Bell, Harold W.; Cook, Robert G.; and Hall, Lester G.,3,536,170.

Cook, Robert G., to North American Rockwell Corporation. High contact density underwater connector. 3,546,657, 12-8-70, Cl. 339-60.

Cook, Robert G.; and Godwin, Patrick F., Jr., to North American Rockwell Corporation. Electronic packaging module for deep ocean environments. 3,523,216, 8-4-70, Cl. 317-101.

Cook, Robert L.; and Sampson, Ernest C., to Eaton Yale & Towne, Inc. Axle suspension system. 3,534,976, 10-20-70, Cl. 280-104.5

Cook, Roy B., to Continental Can Company, Inc. Machine for form-ing bags from thermoplastic tubing. 3,506,523, 4-14-70, Cl. 156-436.

Cook, Rufus L.; and Bealor, Jesse L., Jr., to United States of Amer-ica, Navy. Technique for curving piezoelectric ceramics. 3,496,617, 2-24-70, Cl. 29-25.35

Cook, Shirl E.; and Sistrunk, Thomas O., to Ethyl Corporation. Tetramethyllead recovery. 3,515,739, 6-2-70, Cl. 260-437.

Cook, Sidney Charles, to Martin Reel Company, Inc. Fishing reel. 3,510,083, 5-5-70, Cl. 242-84.51

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Cook, Thomas B., to United States of America, Navy. Power supply system. 3,500,060, 3-10-70, Cl. 307-151.

Cook, Thomas F.; Dybczak, Stanley E.; and Czarnecki, Raymond P., to Vapor Corporation. Water end assembly of a servo-fuel control. 3,532,028, 10-6-70, Cl. 91-401.

Cook, Walter M., Jr.: *See—*
Mayo, James W.; and Cook, Walter M., Jr.,3,526,139.

Cook, William A. Vascular coil spring guide with bendable tip. 3,521,620, 7-28-70, Cl. 128-2.05

Cook, William A. Coil spring guide. 3,547,103, 12-15-70, Cl. 128-2.05

Cook, William H., to Anchor Hocking Corporation. Anti-skid con-tainer trays. 3,490,583, 1-20-70, Cl. 206-65.

Cook, William H. Storage facility for pipes and similar articles. 3,508,669, 4-28-70, Cl. 214-16.

Cooke, Alfred; and Johannson, Harold, to Delmar Chemicals Limited. Baking additive and method for producing baked goods. 3,512,992, 5-19-70, Cl. 99-91.

Cooke, Anson R., to Amchem Products, Inc. Method of controlling plant transpiration. 3,539,373, 11-10-70, Cl. 117-3.

Cooke, Claude E., Jr.: *See—*
Williams, Robert E.; Ayers, Robert C., Jr.; and Cooke, Claude E., Jr.,3,497,007.

Cooke, Harry F.: *See—*
Goode, George E.; Cooke, Harry F.; and Hall, Donald B.,3,536,823.

Cooke, Kenneth G.; Adomeit, Curt G.; and Delaney, Leo David, to Eastman Kodak Company. Method and apparatus for continuous zig-zag web folding. 3,544,099, 12-1-70, Cl. 270-69.

Cooke, Reginald Benjamin William; and Ellwood, George, to Inter-national Standard Electric Corporation. Electric circuit package. 3,548,076, 12-15-70, Cl. 174-52.

Cooke, Robert R.; Hunter, John E.; and Mitchell, Robert W., to Procter & Gamble Company, The. Making soya flour functional in prepared culinary mixes. 3,542,562, 11-24-70, Cl. 99-94.

Cooke, Ronald D.: *See—*
Crist, Elmer E.; Palazzolo, Sam; and Cooke, Ronald D.,3,508,767.

Cooke, William Ernest; Bury, David Egerton; and Smits, Paul, to Alcan Research and Development Limited. Apparatus for continu-ous electrolytic treatment. 3,535,222, 10-20-70, Cl. 204-207.

Cooke-Yarborough, Edmund Harry, to United Kingdom Atomic Energy Authority. Heat engines. 3,548,589, 12-22-70, Cl. 60-24.

Cookerly, Jack C.; and Hall, George Robert. Magnetic coupling switch assembly. 3,497,842, 2-24-70, Cl. 335-207.

Cookerly, Jack C.; and Hall, George R. Amplitude control circuit for electrical instruments. 3,519,724, 7-7-70, Cl. 84-1.27

Cooksey, James D. Plastic screw fastener combination. 3,529,508, 9-22-70, Cl. 85-53.

Cooksey, R. Nelson: *See—*
Cassel, Thomas R., 3,525,419.

Cooksey, William Harold, to Lucas, Joseph, (Industries) Limited. Ig-nition distributors. 3,501,601, 3-17-70, Cl. 200-30.

Cooksey, William Harold, to Lucas, Joseph, (Industries) Limited. Ig-nition distributors. 3,510,609, 5-5-70, Cl. 200-19.

Cooksey, William Harold; and Ball, Albert Henry, to Lucas, Joseph, (Industries) Limited. Ignition distributors. 3,510,608, 5-5-70, Cl. 200-19.

Cookson Company, The: *See—*
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Cookson, Jane P.; and Matthews, Joseph S., to Gulf Research & Development Company. Process for making N-substituted and N,N-substituted carboxylic acid amides. 3,534,099, 10-13-70, Cl. 260-561.

Cool, Charles Gerard Cornelius: *See—*
Fettweis, Alfred Leo Maria; Broux, Joseph Antonius; Cool, Charles Gerard Cornelius; and Salade, Robert Pierre Emile Ferdinand,3,505,477.

Coolbaugh, Richard W.; and Engels, Floyd W., to Automatic Sprin-kler Corporation of America. Illuminated panel and method of making the same. 3,545,110, 12-8-70, Cl. 40-130.

Coolen, Lambertus: *See—*
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Cooley, Austin C., to Eastman Kodak Company. Electrolytic ap-paratus for recovering a metal from a solution. 3,551,317, 12-29-70, Cl. 204-212.

Cooley, Claiborn, Jr., to FMC Corporation. Position lockable, tor-sion spring-balanced fluid loading arm. 3,489,174, 1-13-70, Cl. 137-615.

Cooley, George William: *See—*
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Cooley, William C., to Exotech Incorporated. Hypervelocity pulsed jet head assembly. 3,490,696, 1-20-70, Cl. 239-101.

Cooley, William C., to Exotech Incorporated. Pneumatically powered water cannon. 3,520,477, 7-14-70, Cl. 239-101.

Cooley, William C., to Exotech Incorporated. Hydraulic pulsed jet device. 3,521,820, 7-28-70, Cl. 239-101.

Cooley, William C., to Exotech Incorporated. Hydraulic ram jet device. 3,539,104, 11-10-70, Cl. 239-102.

Cooley, William L. Method and means for separating entrained liquids from solids. 3,550,775, 12-29-70, Cl. 210-81.

Coolidge, John K., to Hankscraft Company. Combination portable foldable bassinet and carrying case. 3,492,680, 2-3-70, Cl. 5-99.

Coombe, John G. B.: *See—*
Dickson, Alexander F.; Coombe, John G. B.; and West, Francis G.,3,515,182.

Coombes, William S.: *See—*
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Coombs, Robert V.; and Hardtmann, Goetz E., to Sandoz-Wander, Inc. Preparation of tertiary-butylamino benzophenones. 3,541,151, 11-17-70, Cl. 260-570.

Coombs, Verner D. Eccentric mass-rotor-motor mechanical testing device. 3,538,756, 11-10-70, Cl. 73-91.

Coombs, William F., Jr.; and Martens, Alexander E., to Bausch & Lomb Incorporated. Binary comparator circuit. 3,508,198, 4-21-70, Cl. 340-146.2

Coomer, Floyd E.: *See—*
Mills, James M.; and Coomer, Floyd E.,3,502,214.

Coon, Benjamin T., to Cominco Ltd. Manufacture of ammonium phosphate fertilizer. 3,523,784, 8-11-70, Cl. 71-34.

Coon, Clifford L., to Stanford Research Institute. Trichloro amidines and process for preparing them. 3,526,664, 9-1-70, Cl. 260-564.

Coon, George M., to Textrol, Inc. Single cycle control system with anti-repeat means. 3,509,976, 5-5-70, Cl. 192-142.

Coon, James A. Hole spacer. 3,487,731, 1-6-70, Cl. 77-55.

Coon, James A.; and Theobald, Elwin. Movable headrest for vehicle seats. 3,498,671, 3-3-70, Cl. 297-403.

Coon, James D.: *See—*
Bright, William L.; Steinmeyer, Herbert N.; and Coon, James D.,3,513,248.

Coon, John Martin, to Du Pont de Nemours, E. I., and Company. Yarn fluid treating apparatus. 3,525,134, 8-25-70, Cl. 28-1.4

Coon, Lewis B., Jr.: *See—*
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Coon, Ralph I., to Minnesota Mining and Manufacturing Company. Process for the production of alpha, alpha-dihydroxy perfluoroal-kyl carboxylic acids. 3,531,505, 9-29-70, Cl. 260-408.

Coon, Ralph I., to Minnesota Mining and Manufacturing Company. Fluoroalkyl gem-diols. 3,549,698, 12-22-70, Cl. 260-535.

Coonen, Joseph A. M. J.: *See—*
Thoma, Jozef A.; and Coonen, Joseph A. M. J.,3,502,708.

Coonen, Joseph A.M.J.: *See—*
Thoma, Jozef A.; and Coonen, Joseph A.M.J.,3,517,048.
Thoma, Jozef A.; Ponnet, Jules P. J.; and Coonen, Joseph A.M.J.,3,517,058.

Coonradt, Harry L.; and Hamilton, Winton W., to Mobil Oil Cor-poration. Reforming with a crystalline aluminosilicate free of hydrogenation activity. 3,533,939, 10-13-70, Cl. 208-135.

Coons, Robert C. Device for converting a snowmobile to a wheeled vehicle. 3,521,717, 7-28-70, Cl. 180-5.

Coons, William R., Jr.: *See—*
Kahn, Frederick K.; Coons, William R., Jr.; and Robertson, Odes B.,3,540,997.

Coontz, John. Support and actuator assembly for bulldozer means. 3,542,136, 11-24-70, Cl. 172-447.

Cooper, Albert Charles: *See—*
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Robinson, Helen M.; Cooper, Albert S., Jr.; Reeves, Wilson A.; and Hoffman, Milton J.,3,498,737.

Cooper, Alden H. Apparatus for producing moving shadow reference lines. 3,520,623, 7-14-70, Cl. 356-200.

Cooper, Bernard John; and Watts, Ian, to English Electric Company Limited, The. Tensioning device. 3,533,574, 10-13-70, Cl. 242-150.

Cooper, Bryan Ewart: *See—*
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Cooper, Cecil D. Artificial rumen stimulator. 3,548,785, 12-22-70, Cl. 119-1.

Cooper, Charles Edward. Static dischargers for aircraft. 3,528,629, 9-15-70, Cl. 244-1.

Cooper, Cleveland N., to Pandjiris Weldment Co., The. Manipulator for welding or cutting apparatus. 3,543,989, 12-1-70, Cl. 228-25.

Cooper, Clinton T. Internal expanding coupling for tubular mem-bers. 3,514,135, 5-26-70, Cl. 285-397.

Cooper, David E.: *See—*
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Cooper, Delbert J.; and Ford, George F., to Phillips Petroleum Com-pany. Fluid blending system. 3,504,686, 4-7-70, Cl. 137-3.

Cooper, Donald L., to Continental Can Company, Inc. Stock pusher and locator. 3,516,316, 6-23-70, Cl. 83-419.

Cooper, Donald R.: *See—*
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Whadcoat, Frank David Walter; and Cooper, Donald,3,503,694.

Cooper, Edward William, to Gary Industries, Inc. Fastener base as-sembly machine. 3,499,592, 3-10-70, Cl. 227-89.

Cooper, Edward, to Systron-Donner Corporation. Digital voltage measuring instrument having a variable time base determined by a reference signal. 3,500,196, 3-10-70, Cl. 324-120.

Cooper, George D. Reflector for producing a color corrected light column. 3,527,974, 9-8-70, Cl. 313-113.

Cooper, Frank W., to Cities Service Company, mesne. Molding ap-paratus. 3,543,338, 12-1-70, Cl. 18-42.

Cooper, George W.: *See—*
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Cooper, Gerald M.: *See—*
Johnson, Karl R.; Schmidt, Thomas R.; and Cooper, Gerald M.,3,489,575.

Cooper, Glen D.: *See—*
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Cooper, Glenn D.; and Bennett, James G., to General Electric Com-pany. Diaryl formanidines as rate promoters in oxidative polyphen-ylene ether formation. 3,544,516, 12-1-70, Cl. 260-47.

Cooper, Glenn D.; and Gilbert, Alfred R., to General Electric Com-pany. Equilibration of poly-(1,4-phenylene ethers). 3,496,236, 2-17-70, Cl. 260-613.

Cooper, Gordon R., to Dunlop Company Limited, The. Stacking devices. 3,545,632, 12-8-70, Cl. 214-8.

Cooper, Hal B. H. Alkali metal hydride product and process for its manufacture. 3,495,938, 2-17-70, Cl. 23-204.

Cooper, Hal B. H. Electrolyzing of salt solutions. 3,496,077, 2-17-70, Cl. 204-98.

Cooper, Hal B. H., to New Jersey Zinc Company, The. Structure and method for heating corrosive fluids. 3,506,249, 4-14-70, Cl. 263-20.

Cooper, Hal B. H. Method for heating gases. 3,519,064, 7-7-70, Cl. 165-1.

Cooper, Hal B. H. Structure and method for heating gases. 3,519,255, 7-7-70, Cl. 263-20.

Cooper, Hal B. H., to American Standard Inc. Method for heating gases. 3,522,711, 8-4-70, Cl. 62-196.

Cooper, Hal B. H. Treatment of water. 3,547,810, 12-15-70, Cl. 210-62.

Cooper, Hal B. H. Furnace structure. 3,550,919, 12-29-70, Cl. 263-20.

Cooper, Harrison R., to International Business Machines Corpora-tion. Method of controlling ore flotation. 3,551,897, 12-29-70, Cl. 340-172.5

Cooper, Harry Christopher; and Okada, Katsuto, to A.P.V. Company Limited, The. Flow control devices. 3,490,494, 1-20-70, Cl. 137-625.46

Cooper, Herbert T.: *See—*
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Cooper, Hugh S. Metallurgical process for the preparation of alu-minum-boron alloys. 3,503,738, 3-31-70, Cl. 75-135.

Cooper, Hugh S., to Weil, Walter M. Purification of elemental boron. 3,551,105, 12-29-70, Cl. 23-209.

Cooper Industries, Inc.: *See—*
Borries, John A., 3,535,960.
Carey, Larry C.; and Stone, Ira N., 3,523,397.
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Cooper, Irving B., Jr., to Industrial Instrumentations, Inc. Control system employing card having conductive inserts. 3,508,031, 4-21-70, Cl. 235-61.11

Cooper, Irving Brooks, to Industrial Instrumentations, Inc. Shift re-gister controlled scanning function monitor. 3,516,089, 6-2-70, Cl. 340-413.

Cooper, Irwin; Melnick, Daniel; and Akerboom, Jack, to CPC Inter-national Inc. Sugar-shortening emulsion and process of making same. 3,533,802, 10-13-70, Cl. 99-86.

Cooper, Jacob: *See—*
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Cooper, James E., to Mobil Oil Corporation. Oil recovery process utilizing a thickened aqueous flooding medium. 3,530,938, 9-29-70, Cl. 166-273.

Cooper, James J.: *See—*
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Cooper, James W. Teaching table. 3,549,200, 12-22-70, Cl. 297-157.

Cooper, Jesse E.: *See—*
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Cooper, John H. Trailer hitch for motorcycles. 3,492,024, 1-27-70, Cl. 280-512.

Cooper, John L.: *See—*
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Cooper, Jonathan C.: *See—*
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Cooper, Joseph F., to Kolleman Instruments Corporation. Wide-angle optical pick-off. 3,490,830, 1-20-70, Cl. 350-166.

Cooper, Joseph W.; and Javorik, Laszlo, to National Video Corpora-tion. Shadow mask bimetal strip means with motion- limiting bumper. 3,524,972, 8-18-70, Cl. 313-85.

Cooper, Joseph; and Corbett, William J., to Grace, W. R., & Co. Paint stripper for aluminum and magnesium surfaces. 3,538,007, 11-3-70, Cl. 252-144.

Cooper, Julius, to Ideal Toy Corporation. Track and vehicle com-bined with vehicle actuated signal member. 3,496,674, 2-24-70, Cl. 46-243.

Cooper, Julius, to Ideal Toy Corporation. Toy boat and simulated electric outboard motor. 3,528,195, 9-15-70, Cl. 46-243.

Cooper, Kenneth G.; and Hansen, Peter R. A., to Midland Silicones Limited. Organosilicon compositions. 3,542,901, 11-24-70, Cl. 260-825.

Cooper, Kenneth, to Gullick Limited. Control systems responsive to the passage of a body. 3,489,460, 1-13-70, Cl. 299-1.

Cooper Laboratories, Inc.: *See—*
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O'Neill, Robert C., 3,501,577.

Cooper, Leslie A. Theft protection apparatus. 3,500,376, 3-10-70, Cl. 340-280.

Cooper, Leslie A. Remote control alarm system. 3,551,906, 12-29-70, Cl. 340-224.

Cooper, Linwood J.: *See—*
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Cooper, Murray Sam: *See—*
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Cooper, Norman. Week-end pet feeder. 3,532,075, 10-6-70, Cl. 119-51.12
Cooper, Oscar J.; Filskov, Alfred, Jr.; and King, John A., to Texas Instruments, Incorporated. Timing module for selectively energizing and deenergizing inductive loads. 3,535,530, 10-20-70, Cl. 250-214.
Cooper, Paul: *See—*
Danker, Otto J.; and Cooper, Paul,3,506,373.
Cooper, Peter John Frederick; Wainwright, John; and Lindfield, Michael John, to Langley London Limited. Heating elements and resistors. 3,516,154, 6-23-70, Cl. 29-611.
Cooper, Ralph F.; and Eckenwiler, James W., to Goodrich, B. F., Company, The. Pneumatic tire building apparatus. 3,493,454, 2-3-70, Cl. 156-415.
Cooper, Ralph F.: *See—*
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Landsness, Clifford A.; and Cooper, Ralph F.,3,518,878.
Cooper Range Company: *See—*
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Cooper, Richard A. Demountable partition wall. 3,534,516, 10-20-70, Cl. 52-212.
Cooper, Roger William: *See—*
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Cooper, Ronald F., to Alphanumeric, Incorporated. Optical focusing. 3,542,475, 11-24-70, Cl. 356-122.
Cooper, Roy F., to Sargent Industries (Oil Well Equipment Division). Hydraulic motor and pump. 3,502,028, 3-24-70, Cl. 103-46.
Cooper, Roy G. Temperature sensing devices. 3,516,082, 6-2-70, Cl. 340-227.1
Cooper, Roydon B., to Pall Corporation. High pressure filter assembly having an easily detachable bowl cover. 3,508,657, 4-28-70, Cl. 210-90.
Cooper Slide Sales, Inc.: *See—*
Campbell, William H., 3,519,315.
Cooper, Thomas A.; Coleman, Richard L.; Morris, Herbert C.; and Nixon, John I., deceased (by Nixon, Roberta Lois; administratrix), to Texaco Inc. Separation of long chain normal paraffin hydrocarbons. 3,507,785, 4-21-70, Cl. 208-308.
Cooper, Thomas M.: *See—*
Parker, William T.; and Cooper, Thomas M.,3,537,179.
Cooper, Walter, to Eastman Kodak Company. Polymerization by contact with materials having positive holes therein. 3,532,680, 10-6-70, Cl. 260-88.3
Cooper, Walter; and Lindsay, Jacque K., to Eastman Kodak Company. Photopolymerizable compositions comprising a ferrocene dye. 3,551,153, 12-29-70, Cl. 96-86.
Cooper, Wilfrid; Vaughan, George; and Wragg, Reginald T., to Dunlop Company Limited, The. Polymerization catalysts for episulphides. 3,499,887, 3-10-70, Cl. 260-239.
Cooper, William Charles, to Manlove, Allicott, & Co., Limited. Autoclaves. 3,488,142, 1-6-70, Cl. 21-93.
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Coover, Harry W., Jr.; and Joyner, Frederick B., to Eastman Kodak Company. Fiber forming linear polyesters with improved dyeability. 3,492,368, 1-27-70, Cl. 260-857.
Coover, Harry W., Jr.; and Joyner, Frederick B., to Eastman Kodak Company. Stereosymmetric polypropylene. 3,549,608, 12-22-70, Cl. 260-93.7
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Cosner, Robert R.; Hart, Henry H.; and Jahnes, Henry J., to Union Carbide Corporation. Dispensing apparatus. 3,493,148, 2-3-70, Cl. 222-194.

Cosper, David F.; and Estes, Jerry R., to Varo, Inc. Method of forming rectifier stacks. 3,543,393, 12-1-70, Cl. 29-583.

Coss, Richard G. Apparatus for measuring the dilation of the pupil. 3,535,026, 10-20-70, Cl. 351-1.

Cossar, Bernard C.; and Reynolds, Delbert D., to Eastman Kodak Company. N,N-disubstituted amino-methylthiocarboxylic acids and use thereof as antifoggants in photographic emulsions. 3,547,638, 12-15-70, Cl. 96-66.5

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Costa, Philip J.; and Miller, Robert G., to Caterpillar Tractor Company. Frequency summing control circuit. 3,536,970, 10-27-70, Cl. 318-227.

Costa, Philip J.; and Phelps, Weldon L., to Caterpillar Tractor Company. Actuator circuit for a vehicle horn. 3,514,622, 5-26-70, Cl. 307-10.

Costa, Philip J.: *See—*
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Costa, Robert B., to Rain Bird Sprinkler Mfg., Corporation. Impact motor driven pop-up sprinkler. 3,515,351, 6-2-70, Cl. 239-206.

Costain, Winston; and Terry, Bernard William Hugh, to Imperial Chemical Industries Limited. Atmospheric steam distillation of adipic acid waste mixture. 3,511,757, 5-12-70, Cl. 203-96.

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Costas, John P., to United States of America, Navy. Time-compression analog correlator (TIMAC). 3,521,044, 7-21-70, Cl. 235-181.

Coste, Angelo C.; and Marshall, Peter N., to Universal Oil Products Company. Method for distillation. 3,537,979, 11-3-70, Cl. 208-103.

Costello, Bernard J., to Argus Engineering Company, Inc. Heating method. 3,522,407, 8-4-70, Cl. 219-85.

Costello, Bernard J., to Argus Engineering Company, Inc. Soldering apparatus. 3,529,117, 9-15-70, Cl. 219-85.

Costello, Christopher Hollet, to Colgate-Palmolive Company. Eye-spraying device having mirror. 3,506,001, 4-14-70, Cl. 128-173.

Costello, Joseph Stanley; and Bouchard, Nelson Arthur, to AMP Incorporated. Guide and crimp-locating means in electrical connectors and method and apparatus for making same. 3,512,123, 5-12-70, Cl. 339-276.

Costello, Leonard C.; and Wiegmann, Karl H., to Hull Corporation. Container stoppering apparatus. 3,537,233, 11-3-70, Cl. 53-264.

Costello, Matthew J.; Ziron, Frank J., 3rd; Bleggi, Henry; and Berg, Allen C., to Sperry Rand Corporation. Print hammer control means in high speed printers. 3,545,375, 12-8-70, Cl. 101-93.

Costello, Robert B.; and Graham, Gilbert Beatte, to General Motors Corporation. Method of making a glass textile strand product. 3,496,717, 2-24-70, Cl. 57-164.

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Cote, Gustave, to Beloit Corporation. System for manufacture of plastic articles. 3,488,803, 1-13-70, Cl. 18-5.
Cote, James A.; and Gregorian, Razmic S., to Grace, W. R., & Co. Ethylene-butene copolymer. 3,509,116, 4-28-70, Cl. 260-88.2
Cote, Paul T.; and Harnden, John D., Jr., to General Electric Company. Photoflash assembly for sequentially flashing lamps utilizing voltage and current responsive devices. 3,532,931, 10-6-70, Cl. 315-240.
Cote, Raymond A., to Riegel Paper Corporation. Carton. 3,493,103, 2-3-70, Cl. 206-45.14
Cote, Raymond A., to Riegel Paper Corporation. Display carton. 3,517,801, 6-30-70, Cl. 206-45.14
Cotta, Ezio D., to Polaroid Corporation. Photographic apparatus. 3,499,373, 3-10-70, Cl. 95-13.
Cotta, Gilbert A.; and Langley, Lawrence W., to Corning Glass Works. Pneumatic position-direction transducer and circuit with weighted code output. 3,550,431, 12-29-70, Cl. 73-37.
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Cottatellucci, Ezio, to Societa Italiana Telecomunicazioni Siemens S.p.A. Frequency modulator with transistor multivibrator. 3,518,575, 6-30-70, Cl. 332-14.
Cottatellucci, Ezio; and Carena, Francesco, to Societa Italiana Telecomunicazioni Siemens S.p.A. Pulse counting-type linear frequency discriminator. 3,502,995, 3-24-70, Cl. 329-126.
Cotter, James F., to Anchor Hocking Corporation. Distribution manifold system for a turret-type glass burn-off machine. 3,529,949, 9-22-70, Cl. 65-269.
Cotter, James F., to Anchor Hocking Corporation. Gas burn-off machine. 3,532,484, 10-6-70, Cl. 65-260.
Cotter, Norman J., to Du Pont de Nemours, E. I., and Company. Dimensionally stable electrical circuit laminates. 3,532,570, 10-6-70, Cl. 156-52.
Cotter, Robert J.; and Sulzberg, Theodore, to Union Carbide Corporation. Charge-transfer polymer blends. 3,536,781, 10-27-70, Cl. 260-860.
Cotterill, Gerald Herbert, to Gullick Limited. Mine roof supports. 3,488,966, 1-13-70, Cl. 61-45.
Cotterill, Rodney M. J., to United States of America, Atomic Energy Commission. Universal planar X-ray resonator. 3,518,427, 6-30-70, Cl. 250-53.
Cotterman, Howard W.; and King, John H., Jr., to International Business Machines Corporation. Speech analysis through formant detection. 3,499,989, 3-10-70, Cl. 179-1.
Cottin, Ronald S.; and Schmulewitz, Stanley, to United States of America, Navy. Automatic magnetic tape dropout evaluator. 3,522,525, 8-4-70, Cl. 324-34.
Cottington, Roger Victor, to United Kingdom of Great Britain and Northern Ireland, Minister of Technology in Her Britannic Majesty's, Government of the. Engine fuel supply servo systems. 3,533,236, 10-13-70, Cl. 60-39.28
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Cotton, Curran D.; and Kuhn, Leon Dean, to Maytag Company, The. Control system for a fuel burner. 3,520,645, 7-14-70, Cl. 431-78.
Cotton de Bennetot, Michel; Estevenon epouse Cottin Maryvonne; Cabrol, Christian; and Coraboeuf, Edouard, to Le Materiel Magnetique. Heart assistance pump. 3,513,486, 5-26-70, Cl. 3-1.
Cotton, John F.; Eley, Edgar R.; and Kurz, Robert A., to Westinghouse Electric Corporation. Methods and apparatus for encapsulating electrical windings. 3,537,677, 11-3-70, Cl. 249-83.
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Cotton, John Michael; and Lloyd, Peter Anthony, to British Telecommunications Research Limited. Data processing system wherein the instruction word contains plural data word addresses. 3,513,446, 5-19-70, Cl. 340-172.5
Cotton, Joseph Bernard; and Hayfield, Peter Charles Steele, to Imperial Metal Industries (Kynoch) Limited. Electrodes and methods of making same. 3,497,425, 2-24-70, Cl. 204-37.
Cotton, Joseph Bernard; and Holmes, David James, to Imperial Metal Industries (Kynoch) Limited. Method of annealing copper and its alloys. 3,488,232, 1-6-70, Cl. 148-13.2
Cotton, Richard A.; and Hamelin, Donald R., to Millipore Corporation. Filter for gravimetric determinations. 3,503,250, 3-31-70, Cl. 73-61.
Cotton, Robert B., to All American Engineering Company. Energy absorber. 3,549,110, 12-22-70, Cl. 244-110.
Cotton, Ronald K.; and Rae, Barney O., to Cutler-Hammer, Inc. Automatic storage and retrieval system. 3,504,245, 3-31-70, Cl. 318-18.
Cotton, Ronald K.; and Rae, Barney O., to Cutler-Hammer, Inc. Automatic storage and retrieval system. 3,537,602, 11-3-70, Cl. 214-16.4
Cotton Silk and Man-Made Fibres Research Association: *See—*
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Cotton Silk and Man-Made Fibres Research Association: *See—*
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Cotton, Simeon H., Jr.; and Cagna, Bruno A., to United States of America, Navy, mesne. Illuminated grid for back lighted plotting boards. 3,499,240, 3-10-70, Cl. 40-130.
Cotton, Terence Leslie, to Rolls-Royce Limited. Catalytic igniter members. 3,527,680, 9-8-70, Cl. 204-32.
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Cottrill, Ernest L.; and Green, Joseph, to United States of America, Navy, mesne. Process for preparing fluorocarbon polymers for use as propellent binders. 3,493,546, 2-3-70, Cl. 260-78.4
Cottrill, George B., to North American Rockwell Corporation. Electronic rate generator. 3,501,651, 3-17-70, Cl. 307-295.
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Coucoulas, Alexander, to Western Electric Company, Incorporated. Ultrasonic bonding method. 3,507,033, 4-21-70, Cl. 29-470.3
Coucoulas, Alexander, to Western Electric Company, Incorporated. Bonding with a compliant medium. 3,533,155, 10-13-70, Cl. 29-471.1
Coudriet, Raymond T., to Chrysler Corporation. Engine temperature control valve. 3,521,610, 7-28-70, Cl. 123-117.1
Coughenour, Donald J.; and Burnett, Wayne A., to HRB-Singer, Inc. Sonic delay line using longitudinal pressure waves to excite slower transverse waves in a membrane. 3,497,834, 2-24-70, Cl. 333-30.
Coughlin, Charles P.; Luhrs, Gunther H.; and Thorpe, Richard W., to International Business Machines Corporation. Object presence sensor. 3,524,953, 8-18-70, Cl. 200-61.42
Coughran, Samuel J., Jr.; and Burkhalter, Harvey D., to Rome Industries, Incorporated. Load ejecting vehicle. 3,549,030, 12-22-70, Cl. 214-85.
Couillais, Yvan A., to MacLean-Fogg Lock Nut Co. Roller drive and guide rail feed mechanism. 3,492,682, 2-3-70, Cl. 10-139.
Couleur, John F.: *See—*
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Bahrs, David L.; Couleur, John F.; Ruth, Richard L.; and Shelly, William A.,3,518,630.
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Couleur, John F.; and Glaser, Edward L., to Massachusetts Institute of Technology, and General Electric Company. Data storage control apparatus for multi-programmed data processing system. 3,525,080, 8-18-70, Cl. 340-172.5
Couleur, John F.; Gudenschwager, Philip F.; Ruth, Richard L.; Shelly, William A.; and Trubisky, Leonard G., to General Electric Company. Data processing system including program transfer means. 3,510,845, 5-5-70, Cl. 340-172.5
Couleur, John F.; Gudenschwager, Philip F.; Shelly, William A.; and Bahrs, David L., to General Electric Company. Data processing unit for providing memory storage of communication status of external apparatus. 3,500,333, 3-10-70, Cl. 340-172.5
Couleur, John F.; Gudenschwager, Philip F.; Shelly, William A.; and Bahrs, David L., to General Electric Company. Externally controlled data processing unit. 3,500,334, 3-10-70, Cl. 340-172.5
Couleur, John F.; Ruth, Richard L.; and Shelly, William A., to General Electric Company. Data processing system. 3,500,329, 3-10-70, Cl. 340-172.5
Coulson, Samuel Howard; and King, Allan, to Geigy Chemical Corporation. Stabilization of polymers with alkali and alkaline earth metal salts. 3,527,730, 9-8-70, Cl. 260-45.7

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Coulter, John S., to Iowa Paint Manufacturing Company, Incorporated. Storage stable coating composition comprising alkyd resin, esterified inorganic acid, and volatile buffer material. 3,547,846, 12-15-70, Cl. 260-21.
Coulter, Michael Oliver; and Bell, David, to Murgatroyd's Salt and Chemical Company Limited. Electrolytic cells having detachable anodes secured to current distributors. 3,515,661, 6-2-70, Cl. 204-263.
Coulter, Wallace H.; and Hogg, Walter R., to Coulter Electronics, Inc. Collating apparatus for pairs of electrical pulses produced by particle analyzing apparatus. 3,502,973, 3-24-70, Cl. 324-71.
Coulter, Wallace H.; and Hogg, Walter R., to Coulter Electronics, Inc. Signal modulated apparatus for generating and detecting resistive and reactive changes in a modulated current path for particle classification and analysis. 3,502,974, 3-24-70, Cl. 324-71.
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Councilman, Richard R.; and Miller, Robert N., to LTV Electrosystems, Inc. Symbol generator using aperture cards. 3,524,987, 8-18-70, Cl. 250-219.
Counselman, Clarence James, to Ciba Corporation. Pesticidal preparations. 3,496,270, 2-17-70, Cl. 424-211.
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Coupe, George W. Seat for a golf cart or the like. 3,506,280, 4-14-70, Cl. 280-47.19
Couper, John R. Container for incremental withdraw of tubular plastic. 3,536,192, 10-27-70, Cl. 206-56.
Coupette, Werner, to Standard-Messo Duisburg. Method of heating up and initiating metallurgical reactions in the pouring jet when degasifying the latter in a vacuum. 3,511,641, 5-12-70, Cl. 75-12.
Coupin, Claude, to Societe de Constructions Electromecaniques Jeumont-Schneider. Electronic track circuit for railway signalling. 3,529,150, 9-15-70, Cl. 246-34.
Coupland, Ernest, deceased (by Midland Bank and Trustee Company Limited, executor); and Blower, Sidney, to Rubery, Owen, and Company Limited. Power presses. 3,507,142, 4-21-70, Cl. 72-415.
Coupland, Frank E., to Shell Oil Company. Apparatus for minimizing terminal drool in intermittent-charge plastic extrusion apparatus. 3,526,929, 9-8-70, Cl. 18-14.
Coupland, Keith, to Distillers Company Limited, The. Hydroxy phenyl phosphites. 3,493,637, 2-3-70, Cl. 260-927.
Coupland, Keith, to BP Chemicals (U.K.) Limited. Grease composition. 3,502,580, 3-24-70, Cl. 252-42.1
Coupland, Keith, to Orobis Limited, mesne. Reaction products of diketene with certain substituted N-(alkylamino) succinimides. 3,546,243, 12-8-70, Cl. 260-326.3
Coupland, Keith; and Pennington, John, to BP Chemicals (U.K.) Limited. Lubricating oil compositions. 3,498,916, 3-3-70, Cl. 252-51.5
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Page, Wilbur M.; and Coupland, Ralph,3,522,867.
Couquet, Pierre, to Debron Carpets Limited, Manufacture of pile fabrics. 3,531,343, 9-29-70, Cl. 156-72.
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Courchesne, Germain. Smoke and vapor collecting hood. 3,530,784, 9-29-70, Cl. 98-115.
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Lippert, Axel; Bottenbruch, Ludwig; Casper, Clemens; Court, Otto; and Vernaleken, Hugo,3,550,669.
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Courtney, John E., to United States of America, Navy. Universal digital filter and function generator. 3,543,012, 11-24-70, Cl. 235-197.
Courtney, Mary E. Therapeutic positioning glove. 3,547,112, 12-15-70, Cl.
Courtney-Pratt, Jeofry S., to Bell Telephone Laboratories, Incorporated. Laser pulse generator using a rotating prism alternately as a reflective and as a transmissive element. 3,539,939, 11-10-70, Cl. 331-94.5
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Courville, Rudolph S. Winged logging wedge. 3,515,372, 6-2-70, Cl. 254-104.
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Cousins, Howard M., to United States of America, Federal Aviation Administration. Air recirculating heat exchange system. 3,496,994, 2-24-70, Cl. 165-41.
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Covill, Dennis H., to E.M.I.-Cossor Electronics Limited. Wide band radio transmitter. 3,546,590, 12-8-70, Cl. 325-171.

Covill, Michael John: *See—*
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Covill, Thomas C., to Esso Research and Engineering Company. System for controlling the transfer of materials into or out of a reservoir. 3,539,818, 11-10-70, Cl. 307-9.

Covino, Charles P., to General Magnaplate Corporation. Aluminum articles having a polymeric fluorohydrocarbon surface and processes for preparing the same. 3,533,920, 10-13-70, Cl. 204-38.

Covitz, Frank H., to Union Carbide Corporation. Electrochemical oxidation of phenol. 3,509,031, 4-28-70, Cl. 204-78.

Cow & Gate Limited: *See—*
Lyster, John F.; and Gunner, Christopher S. J., 3,511,398.

Cowan, Ben. Pulp stock consistency regulator. 3,528,281, 9-15-70, Cl. 73-61.

Cowan, David Mark,: *See—*
Cowan, David Mark; Cowan, Stanley Philip; and Rickets, William Thomas, 3,551,020.

Cowan, David Mark; Cowan, Stanley Philip; and Rickets, William Thomas, to Cowan, David Mark, Cowan, Stanley Philip, trading in partnership as the Helio Mirror Company. Optical apparatus with three layer plastic seal. 3,551,020, 12-29-70, Cl. 350-67.

Cowan, Donald: *See—*
Ellis, Weldon T., Jr.; and Cowan, Donald,3,506,984.

Cowan, Edwin J. High efficiency gas infrared heater. 3,489,134, 1-13-70, Cl. 126-91.

Cowan, Frank O. Cattle spraying device. 3,496,914, 2-24-70, Cl. 119-157.

Cowan, George R.: *See—*
Bergmann, Oswald R.; Cowan, George R.; and Holtzman, Arnold H.,3,493,353.

Cowan, James MacMillan; Brooker, Frederick Edwin; Nield, Brian; Rogers, William James Stuart; Smith, Edmund; Tarpey, Frank; and Durnford, John, to Merseyside and North Wales Electricity Board, The. Control systems. 3,488,517, 1-6-70, Cl. 307-3.

Cowan, John C.: *See—*
Bell, Edward W.; and Cowan, John C.,3,513,205.

Cowan, Larry C., to Leesona Corporation. Winding apparatus. 3,524,605, 8-18-70, Cl. 242-130.

Cowan, Larry C., to Leesona Corporation. Fluid valve with pilot valve control. 3,529,629, 9-22-70, Cl. 137-625.6

Cowan, Michael N. Antigenic test applicator. 3,512,520, 5-19-70, Cl. 128-2.

Cowan, Robert T., to Boeing Company. Composite laminar structure for noise attenuation of fast moving gas streams, and method of making the same. 3,502,171, 3-24-70, Cl. 181-33.

Cowan, Royce G.; and Stewart, Dan F., to Phillips Petroleum Company. Method for extruding a foamed polyolefin ribbon having a high gloss surface finish. 3,536,797, 10-27-70, Cl. 264-51.

Cowan, Stanley Philip: *See—*
Cowan, David Mark; Cowan, Stanley Philip; and Rickets, William Thomas, 3,551,020.

Cowan, Stanley Philip: *See—*
Cowan, David Mark; Cowan, Stanley Philip; and Rickets, William Thomas,3,551,020.

Cowan, Stanley W.: *See—*
Burness, Donald M.; Cowan, Stanley W.; and Wright, Charles J.,3,490,911.

Cowan, William C., 50% to Rees Burner & Blow Pipe Co. Industrial burner draught regulating mechanism. 3,524,418, 8-18-70, Cl. 110-18.

Coward, Charles Waddell, Jr. Acoustical systems for air moving devices. 3,540,547, 11-17-70, Cl. 181-50.

Coward, Peter Norman, to Lucas, Joseph, (Industries) Limited. Molds for casting intercell connectors for use in electric storage batteries. 3,544,057, 12-1-70, Cl. 249-63.

Coward, Todd L.; and Darling, Thomas E., to Procter & Gamble Company, The. Detergent compositions. 3,537,993, 11-3-70, Cl. 252-8.75

Cowdroy, John: *See—*
O'Malley, Laurence; Cowdroy, John; and Vanzanten, Richard,3,505,719.

Cowell, Clifton Douglas: *See—*
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Hofton, Martin Richard; Cowell, Clifton Douglas; and Page, Eric John,3,498,941.

Cowell, Ronald, to May & Baker Limited. Photographic developer compositions. 3,532,498, 10-6-70, Cl. 96-66.1

Cowen, Arthur; Davies, Lynn T.; and Teno, Richard L., to General Motors Corporation. Leveling high speed plating. 3,551,301, 12-29-70, Cl. 204-29.

Cowen, Samuel H., to Grace, W. R., & Co. Disposable examination and X-ray garments. 3,521,301, 7-21-70, Cl. 2-114.

Cowgill, Edwin A., to United States of America, Army. Trailer hitch assembly. 3,528,684, 9-15-70, Cl. 280-456.

Cowles Chemical Company: *See—*
Cope, Richard P., Jr., 3,489,794.

Cowles, John H.: *See—*
Benson, Carl F.; and Cowles, John H.,3,528,534.
Elmore, J. Russell; and Cowles, John H.,3,537,554.

Cowles, John H., to Torrington Company, The. Bearing seals for drawn cup bearings. 3,510,182, 5-5-70, Cl. 308-187.2

Cowles, John H.; and Massey, Roger G., to Torrington Company, The. Seat back position control mechanism. 3,517,965, 6-30-70, Cl. 297-374.

Cowles, Richard A.: *See—*
Eliott, Carmon M.; and Cowles, Richard A.,3,487,919.

Cowles, Roderick J.: *See—*
Roberts, Hugh J.; Wimmer, Ernest L.; and Cowles, Roderick J.,3,523,094.

Cowles, Walter C., to Esso Research and Engineering Company. Shipping container and method for transporting hydrocarbon fluids and the like. 3,537,416, 11-3-70, Cl. 114-74.

Cowley, John James, to Abbott Laboratories. Breathing apparatus. 3,491,752, 1-27-70, Cl. 128-147.

Cowley, John James, to Abbott Laboratories, mesne. Portable resuscitator apparatus. 3,502,075, 3-24-70, Cl. 128-145.8

Cowley, John James, to Abbott Laboratories, mesne. High pressure gas storage and discharge apparatus. 3,505,996, 4-14-70, Cl. 128-145.8

Cowley, John James, to Abbott Laboratories, mesne. Oxygen breathing apparatus. 3,505,997, 4-14-70, Cl. 128-145.8

Cowley, Roger A.; Dolling, Gerald; Cochran, William W.; Pawley, Godfrey S.; and Lefkowitz, Issai, to United States of America, Army, mesne. Semi-conducting ferroelectric transducers. 3,514,677, 5-26-70, Cl. 317-237.

Cowling, Robert E.; Harris, William H.; and Lafitte, Carl Wayne, to Astron Corporation. Mowing apparatus. 3,498,036, 3-3-70, Cl. 56-25.4

Cowpland, Michael C. J., to Northern Electric Company Limited. Pushbutton dial telephone set. 3,544,731, 12-1-70, Cl. 179-84.

Cowsert, Charles A., to Monarch Molding, Inc. Terminal block connector. 3,535,677, 10-20-70, Cl. 339-198.

Cox, Albert E. Roll trailer top. 3,488,087, 1-6-70, Cl. 296-100.

Cox, Alvon R., to Abbott Laboratories. Golf ball made from a vulcanized elastomer composition. 3,502,338, 3-24-70, Cl. 273-218.

Cox, Bernard Carlton: *See—*
Ford, Ian Alastair Moncrieff; Cox, Bernard Carlton; and Thornton, James Coward,3,503,883.
Ford, Ian Alastair Moncrieff; Cox, Bernard Carlton; and Thornton, James Coward,3,518,098.

Cox, Cecil Wayne; and May, Frederick T., to International Business Machines Corporation. Detection and error checking system for binary data. 3,524,164, 8-11-70, Cl. 340-146.1

Cox, Dean M., to General Motors Corporation. Method of fabricating a heat exchanger from corrugated sheets. 3,545,062, 12-8-70, Cl. 29-157.3

Cox, Eugene B.; and Cox, Eugene B. Impregnated dielectric systems. 3,530,561, 9-29-70, Cl. 29-25.42

Cox, Eugene B.: *See—*
Cox, Eugene B.; and Cox, Eugene B.,3,530,561.

Cox, Eugene F., to Union Carbide Corporation. Cyclopentadiene adducts. 3,524,890, 8-18-70, Cl. 260-611.

Cox, Eugene F.: *See—*
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Hostettler, Fritz; and Cox, Eugene F.,3,532,715.

Cox, Frank T., Jr., to Rockwell-Standard Company, mesne. Brake mechanism. 3,511,103, 5-12-70, Cl. 74-110.

Cox, Frank T., Jr.; and Powers, Richard L., to Rockwell-Standard Company, mesne. Brake system and actuator therefor. 3,550,379, 12-29-70, Cl. 60-54.6

Cox, Gary R.: *See—*
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Cox, Howard D.; and Rosenberg, Harry W., to Titanium Metals Corporation of America. Titanium base alloy. 3,510,295, 5-5-70, Cl. 75-175.5

Cox, Howard N., to General Electric Company. Tension limit modification control. 3,508,425, 4-28-70, Cl. 72-9.

Cox Instruments Division Lynch Corporation: *See—*
Scourtes, George, 3,497,719.
Scourtes, George, 3,528,288.

Cox, Irvin W., to Cambridge Thermionic Corporation. Stepping motor rotor and stator with plastic embedded laminated pole pieces and method of making. 3,502,914, 3-24-70, Cl. 310-42.

Cox, Jack R. Drainage ditch machine. 3,511,394, 5-12-70, Cl. 214-90.

Cox, James P., to Inglis, John, Frozen Foods Company. Machine for trimming projections from globular articles. 3,538,969, 11-10-70, Cl. 146-81.

Cox, John A., Jr.; Glaser, George R., Jr.; and Shoger, Merlyn J., to Union Carbide Corporation. Catalyst system for making hydrogen cyanide. 3,545,939, 12-8-70, Cl. 23-288.

Cox, John Edward. Originating register control switching system with optimum-routing network status programming. 3,525,814, 8-25-70, Cl. 179-18.

Cox, John R.; and Mix, Joseph E., to Balas Collet Company. Hydraulic chuck or arbor. 3,516,681, 6-23-70, Cl. 279-4.

Cox, John R.; and Mix, Joseph E., to Balas Collet Company. Tool presetting device. 3,546,781, 12-15-70, Cl. 33-185.

Cox, Kenneth E.: *See—*
Gatto, David M.; and Cox, Kenneth E.,3,508,883.

Cox, Lawrence D.; and Price, Robert T., to United States of America, Navy. Checkout equipment for missile carrying aircraft. 3,518,779, 7-7-70, Cl. 35-12.

Cox, Leamon S.; and Gibbs, Winfield D. Automatic drinking glass washer. 3,500,489, 3-17-70, Cl. 15-76.

Cox, Norman L.: *See—*
Bottjer, William George; and Cox, Norman L.,3,529,930.

Cox, Paul F.: *See—*
Every, Richard L.; and Cox, Paul F.,3,493,337.
Every, Richard L.; and Cox, Paul F.,3,524,724.
Every, Richard L.; and Cox, Paul F.,3,529,951.

Cox, Paul W.: *See—*
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Boyce, Elvin L.; and Cox, Paul W.,3,526,935.

Cox, Peter H., to Miles Laboratories, Inc. Tableting. 3,518,346, 6-30-70, Cl. 424-44.

Cox, Richard M.; and Ciufo, Leonard R., to Stiefel Laboratories, Inc. Stable benzoyl peroxide composition. 3,535,422, 10-20-70, Cl. 424-164.

Cox, Richard M.: *See—*
White, Cleveland J.; and Cox, Richard M.,3,530,217.

Cox, Richard W. Exhaust filtration and collector system. 3,487,607, 1-16-70, Cl. 55-222.

Cox, Robert B. Electric fence. 3,516,643, 6-23-70, Cl. 256-10.

Cox, Robert Bruce, to United States of America, Interior, mesne. Distillation plant. 3,499,827, 3-10-70, Cl. 202-173.

Cox, Robert Earl: *See—*
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Cox, Robert G., to Aeroquip Corporation. Split flange connection. 3,549,179, 12-22-70, Cl. 285-189.

Cox, Robert J.: *See—*
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Clecak, Nicholas J.; and Cox, Robert J.,3,549,358.
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Clecak, Nicholas J.; Cox, Robert J.; Solar, Samuel L.; and Wurster, Herbert K.,3,501,293.

Cox, Robert M.; Czernek, Clyde F.; and Turner, Kenneth E., to Servo Labs., Inc. Digital actuator. 3,491,319, 1-20-70, Cl. 335-259.

Cox, Robert M.; Czernek, Clyde F.; and Turner, Kenneth E., to Servo Labs., Inc. Digital actuator with fluid damping. 3,543,204, 11-24-70, Cl. 335-267.

Cox, Robert P.: *See—*
Berg, Rodney; and Cox, Robert P.,3,493,484.
Bjorksten, Johan A.; Cox, Robert P.; Lappala, Risto P.; and Yaeger, Luther L.,3,510,390.

Cox, Ronald H.; and Strack, Hans A., to Texas Instruments, Incorporated. Ohmic contacts for gallium arsenide semiconductors. 3,544,854, 12-1-70, Cl. 317-234.

Cox, Thomas L., to DMI, Inc. Method for injecting foam drilling fluid. 3,493,059, 2-3-70, Cl. 175-24.

Cox, Walter N., to Microtek Electronics, Inc. Circuit structure with capacitor. 3,490,055, 1-13-70, Cl. 333-70.

Cox, William E., to Lyall Electric, Inc. Safety plug for electrical devices. 3,493,915, 2-3-70, Cl. 339-14.

Cox, William F. Hardtop camping trailer. 3,516,708, 6-23-70, Cl. 296-23.

Cox, William John, to Ferranti, Limited. Magnetic core stores. 3,521,254, 7-21-70, Cl. 340-174.

Cox, William T.; and Buday, Harold H., to Aerojet-General Corporation. Method of prreparing filament-wound open beam structures. 3,551,237, 12-29-70, Cl. 156-175.

Coy, Wayne R.: *See—*
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Coyle, Jan R., to Threadline Fastener Corporation. Fastener and method of making the same. 3,497,890, 3-3-70, Cl. 10-86.

Coyle, Jan R., to Brown International Corporation. Fastener assembly. 3,511,289, 5-12-70, Cl. 151-19.

Coyle, Jan R., to Fastener Corporation, mesne. Internally threaded self-locking fastener. 3,550,668, 12-29-70, Cl. 151-7.

Coyle, John D., to Miller & Company. Titanium additive and method of use thereof. 3,507,644, 4-21-70, Cl. 75-130.

Coyne, Donald M.; and Francis, William C., to Gulf Research & Development Company. Process for the production of methyl methacrylate. 3,539,620, 11-10-70, Cl. 260-486.

Coyne, James C.; Elia, Frederick J.; and Southworth, Hamilton, Jr., to Bell Telephone Laboratories, Incorporated. Location detection and guidance systems for burrowing device. 3,529,682, 9-22-70, Cl. 175-45.

Coyne, James C.; and Southworth, Hamilton, Jr., to Bell Telephone Laboratories, Incorporated. Guided burrowing device. 3,525,405, 8-25-70, Cl. 175-19.

Coyne, Roger P., to Gulf Research & Development Company. Oxidation of isobutylene to methacrylaldehyde over complex vanadium oxide catalysts. 3,499,936, 3-10-70, Cl. 260-604.

Coyne, William E.: *See—*
Cusic, John W.; and Coyne, William E.,3,489,745.
Cusic, John W.; and Coyne, William E.,3,509,149.
Cusic, John W.; and Coyne, William E.,3,528,982.

Coyne, William E.; and Cusic, John W., to Searle, G. D., & Co. Dibenzoxazepine-N-carboxylic acid hydrazides and related compounds. 3,534,019, 10-13-70, Cl. 260-239.

Coyne, William E.; and Cusic, John W., to Searle, G. D., & Co.6-Amino 1,1a,6,10b-tetrahydrodibenzo[a,e] cyclopropa[a]-cyclohepten-6-ols and esters thereof. 3,547,933, 12-15-70, Cl. 260-294.7

Cozby, Warren E.: *See—*
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Cozens, William Walter: *See—*
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C/P Corporation: *See—*
Scott, Arthur L., 3,495,494.

CPC International Inc.: *See—*
Acton, Edward McIntosh; and Mosher, Carol Walker, 3,549,616.
Armbruster, Frederick C., 3,541,077.
Armbruster, Frederick C.; and Jacaway, William A., Jr., 3,549,496.
Brown, Bernard Beau; and Schilling, Frederick A. E., 3,535,382.
Brown, Carl F.; Gooding, Chester M.; and Knight, Stiling F., 3,512,994.
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Molotsky, Hyman M.; and Caimi, Ronald J., 3,507,817.
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Staackmann, Joachim W.; and Campbell, Arlen R., 3,519,440.
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CPS Industries, Inc.: *See—*
Culberg, Jack J.; and Gale, Burton A., 3,489,333.
Kerrigan, James E., 3,525,660.

Crabb, Clarence R.: *See—*
Mc Donald, Leighton S.; and Crabb, Clarence R.,3,549,547.

Crabb, William T. Clamping tool for stiff wire clips. 3,507,305, 4-21-70, Cl. 140-106.

Crabbe, James S., to Texas Instruments, Incorporated. Integrated band-pass filter. 3,529,256, 9-15-70, Cl. 330-24.

Crabbe, Pierre, to Syntex Corporation. Cyclopropenyl androstanes. 3,492,318, 1-27-70, Cl. 260-397.3

Crabbe, Pierre, to Syntex Corporation. Cyclopropenyl estra, -1,3,5(10)-trienes. 3,492,321, 1-27-70, Cl. 260-397.4

Crabtree, Allen; and Holmes, Graham, to Imperial Chemical Industries Limited. Mixed oromuim complex monoazo dyestuffs. 3,544,546, 12-1-70, Cl. 260-145.

Crabtree, Allen; and Murton, Henry Roy, to Imperial Chemical Industries Limited. Water-soluble triazine reactive metal complex mono azo dyestuffs. 3,544,547, 12-1-70, Cl. 260-146.

Crabtree, Clinton Larry; Alcox, Ray Warren; and Jameson, Wayne Reynold, to United States of America, Health, Education and Welfare. Dental X-ray teaching and training replica. 3,520,060, 7-14-70, Cl. 32-71.

Crabtree, Kenneth L., to Keyes Fibre Company. Serving tray with hinged cup retainer. 3,542,280, 11-24-70, Cl. 229-15.

Crabtree, Royale R.; and Beeker, Charles W., to United States of America, Army. Retardation device for air dropped stores. 3,550,885, 12-29-70, Cl. 244-138.

Cracco, Francis J.: *See—*
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Craddock, John H.: *See—*
Caropreso, Frank E.; Chang, Clarence D.; Craddock, John H.; and Spector, Marshall L.,3,510,532.

Craddock, Mike. Time delay relay. 3,524,109, 8-11-70, Cl. 317-141.

Craemer, Lambert F.; and Brooks, James N., to Robertshaw Controls Company. Pressure snap control valve. 3,524,621, 8-18-70, Cl. 251-75.

Craemer, Lambert F.; Kelly, Samuel T.; Chambers, William W.; and Willson, James R., to Robertshaw Controls Company. Electromagnetic apparatus. 3,523,263, 8-4-70, Cl. 335-276.

Crafoord, Sixten A. Adjustable support rack. 3,502,222, 3-24-70, Cl. 211-40.

Craft Corporation: *See—*
Fitzgerald, Arthur Ernest; Fitzgerald, Arthur A.; Bauer, Michael Joe; and Geci, Lawrence Anton, 3,499,501.

Craft, David John: *See—*
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Craft, John T., to Jolyn Corporation. Pickup bed cap. 3,512,828, 5-19-70, Cl. 296-100.

Craft Master Corporation: *See—*
Donofrio, Alfonso M., 3,518,725.
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Tabor, Joseph M.; and Donofrio, Alfonso M., 3,550,648.

Craft Metal Products, Inc.: *See—*
Stern, Melvin J., 3,500,957.

Crafton, James Richmond, to Du Pont de Nemours, E. I., and Company. Web handling apparatus and process. 3,503,526, 3-31-70, Cl. 242-55.

Crafts, Harold S., to Fairchild Camera and Instrument Corporation. Planar epitaxial resistors. 3,488,564, 1-6-70, Cl. 317-235.

Crafts, Harold S.; Sander, Wendell B.; and Angell, James B., to Fairchild Camera and Instrument Corporation. Mos gated resistor memory cell. 3,530,443, 9-22-70, Cl. 340-173.

Cragg, Richard E., to Teletype Corporation. Three position tight tape switch. 3,525,832, 8-25-70, Cl. 200-61.13

Cragg, William Donald; and Leman, Hugh Spence, to International Standard Electric Corporation. Tone signalling device using piezoelectric reed oscillators. 3,546,619, 12-8-70, Cl. 331-49.

Cragin, Ralph F.: *See—*
Benson, Warren E., Jr.; and Cragin, Ralph F.,3,488,758.

Crago, William Arthur, to British Hovercraft Corporation Limited. Flexible skirting assemblies for ground effect machines. 3,536,156, 10-27-70, Cl. 180-128.

Cragoe, Edward J., Jr., to Merck & Co., Inc.[3 and 4-(2-Alkylidenealkanoyl)phenoxy]- fluoroacetic acids. 3,514,482, 5-26-70, Cl. 260-521.

Cragoe, Edward J., Jr., to Merck & Co., Inc. 2-(5-Amino-1H-1,2,4-triazol-3yl)-3-aminopyrazines and processes for their preparation. 3,515,723, 6-2-70, Cl. 260-250.

Cragoe, Edward J., Jr., to Merck & Co., Inc.[2-(Halomethyl) alkanoyl] phenoxy] alkanoic acids. 3,535,370, 10-20-70, Cl. 260-473.

Cragoe, Edward J., Jr., to Merck & Co., Inc.[4-(2-Hydroxymethylalkanoyl)-phenoxy] acetic acids. 3,541,142, 11-17-70, Cl. 260-521.

Cragoe, Edward J., Jr.; and Bicking, John B., to Merck & Co., Inc. Process for preparing pyrazinoyl- and pyrazinamidoguanidines. 3,491,094, 1-20-70, Cl. 260-250.

Cragoe, Edward J., Jr.; and Bicking, John B., to Merck & Co., Inc. Process for preparation of pyrazinoyl- and pyrazinamidoguanidines. 3,506,662, 4-14-70, Cl. 260-250.

Cragoe, Edward J., Jr.; and Bicking, John B., to Merck & Co., Inc.[(1-Organothio-2,2-diacylethyl)phenoxy] alkanoic acids. 3,513,190, 5-19-70, Cl. 260-516.

Cragoe, Edward J., Jr.; and Bicking, John B., to Merck & Co., Inc.Preparation of [4-(2,2-diacylvinyl) phenoxy]acetic acids. 3,538,154, 11-3-70, Cl. 260-521.

Cragoe, Edward J., Jr.; and Bicking, John B., to Merck & Co., Inc. 3-Amino-5,6 substituted pyrazinamides. 3,544,568, 12-1-70, Cl. 260-247.2

Cragoe, Edward J., Jr.; and Gould, Norman P., to Merck & Co., Inc. Process for preparation of pyrazinoylguanidines. 3,503,973, 3-31-70, Cl. 260-250.

Cragoe, Edward J., Jr.; and Jones, James H., to Merck & Co., Inc. Process for the preparation of pyruzinoylguanidines from a pyrazinoic azide and a guanidine. 3,527,758, 9-8-70, Cl. 260-250.

Cragoe, Edward J., Jr.; and Shepard, Kenneth L., to Merck & Co., Inc. Process for making pyrazinoylthiourea compounds. 3,544,571, 12-1-70, Cl. 260-250.

Cragoe, Edward J., Jr.; and Woltersdorf, Otto W., Jr., to Merck & Co., Inc.[4-(2,3-Epoxyalkanoyl) phenoxy] acetic acids. 3,501,503, 3-17-70, Cl. 260-348.

Cragoe, Edward J., Jr.: *See—*
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Jones, James H.; and Cragoe, Edward J., Jr.,3,507,865.
Jones, James H.; and Cragoe, Edward J., Jr.,3,507,866.
Schultz, Everett M.; and Cragoe, Edward J., Jr.,3,530,178.

Cragstan Industries, Inc.: *See—*
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Craia, Giullo: *See—*
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Bertin, Mario; Moiso, Ugo; Craia, Giullo; and Pasquarelli, Aldo,3,546,201.

Craig, Burnie M., to Soilserv, Inc. Seed-tape manufacture. 3,511,016, 5-12-70, Cl. 53-28.

Craig, Charles R.; and Sollman, Paul B. 17-Oxygenated-3-ethoxy-6-(disubstituted aminomethyl) pregna-3,5-dien-20-ones and analgesic compositions. 3,534,071, 10-13-70, Cl. 260-397.4

Craig, Colin: *See—*
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Craig, Dwin R ., to Logetronics, Inc. Automatic focusing apparatus using a diffusing element. 3,493,764, 2-3-70, Cl. 250-204.

Craig, Dwin R., to Fairchild Hiller Corporation. Three dimensional motion picture film projection system using conventional film. 3,537,782, 11-3-70, Cl. 352-86.

Craig, Dwin R.; and Street, John N., to Logetronics, Inc. Photographic unsharp masking method involving the use of a photochromic body. 3,510,305, 5-5-70, Cl. 96-44.

Craig, Ernest G. L.: *See—*
Hammer, Thorvald F.; and Craig, Ernest G. L.,3,493,093.

Craig, Gale M., to General Motors Corporation. Fuel cell electrode assembly and method of regenerating cell. 3,488,224, 1-6-70, Cl. 136-86.

Craig, Gale M., to General Motors Corporation. High power density electrochemical method and cell for producing electrical energy. 3,496,023, 2-17-70, Cl. 136-86.

Craig, Gale M., to General Motors Corporation. Galvanic cell and method of operation. 3,546,021, 12-8-70, Cl. 136-86.

Craig, George B., Jr., to United States of America, Health, Education, and Welfare. Sterilization of female mosquitoes with a hormone derived from male mosquitoes. 3,531,566, 9-29-70, Cl. 424-95.

Craig, Harry, Jr.: *See—*
Calvert, William L.; and Craig, Harry, Jr.,3,490,979.

Craig, Herbert C.: *See—*
Netherwood, Paul H.; Craig, Herbert C.; Rondeau, Ernest B.; and Linzey, Raynor,3,523,225.

Craig, Hugh Robert Morton, to Associated Electrical Industries Limited. Gas turbine plants. 3,500,636, 3-17-70, Cl. 60-39.03

Craig, Hugh Robert Morton, to Associated Electrical Industries Limited. Method and apparatus for operating a gas turbine with gases including contaminants of a residual fuel. 3,550,372, 12-29-70, Cl. 60-39.02

Craig, James R., to Litton Medical Products, Inc. Anode heat content calculator for X-ray tube. 3,538,331, 11-3-70, Cl. 250-93.

Craig, James R., to Litton Medical Products, Inc. Automatic control of a nonsynchronous cine fluororadiographic apparatus. 3,546,461, 12-8-70, Cl. 250-95.

Craig, James R.; and Bayar, Mete, to Profexray, Inc. Direct contact X-ray image intensifier housing apparatus. 3,488,499, 1-6-70, Cl. 250-77.

Craig, James R.; and Otto, George W., Jr., to Litton Medical Products, Inc. X-ray table mounted for constant translational movement and nonlinear rotational movement. 3,532,882, 10-6-70, Cl. 250-55.

Craig, Lawrence E.; and Webber, Clifford J., to Niles Expanded Metals Company. Stair tread. 3,496,688, 2-24-70, Cl. 52-179.

Craig, Michael A.; and Holms, Walter I., to Corning Glass Works. Burette with removable stopcock formed of synthetic resin. 3,512,944, 5-19-70, Cl. 23-292.

Craig, Paul N.; and Groves, William G., to Smith Kline & French Laboratories. Methods of inhibiting gastric secretion with benzo [c]phenothiazines. 3,505,452, 4-7-70, Cl. 424-247.

Craig, Raymond M.; Crowe, James W.; and Wilkie, Earl L., to International Business Machines Corporation. Heat sink assembly for semiconductor devices. 3,509,429, 4-28-70, Cl. 317-234.

Craig, Richard A.; Lane, John W.; and Light, Robert L., Jr., to United Aircraft Corporation. Process for bonding. 3,504,426, 4-7-70, Cl. 29-473.1

Craig, Richard L.; Hunter, Edward A.; and Mayerle, Evan A., to Nalco Chemical Company. Preparation of organo metallic compounds. 3,497,428, 2-24-70, Cl. 204-59.

Craig, Robert A.: *See—*
Carter, Philip S.; and Craig, Robert A.,3,500,256.

Craig, Robert S., to General Electric Company. Cholesterol-substituted siloxanes. 3,515,734, 6-2-70, Cl. 260-397.2

Craig, Roger R.: *See—*
Ortwerth, Paul J.; and Craig, Roger R.,3,505,867.

Craig, Sam N.: *See—*
Combs, William H.; Craig, Sam N.; and Warner, Ellis R., Jr.,3,489,356.

Craig Systems Corporation: *See—*
Corsetti, Richard M., 3,514,122.

Craig, Walton H.; Finkelston, Robert J.; Humphrey, Dean E.; Lavanchy, Andre C.; and Shapiro, Leonard, to Pennwalt Corporation. Centrifuging process and apparatus. 3,494,542, 2-10-70, Cl. 233-7.

Craig, William L., to Vanderbilt, R. T., Company, Inc. Pigment or filler and materials and procedures for making the same. 3,528,836, 9-15-70, Cl. 106-300.

Craige, Theodore L., to United Transformer Company, division of TRW Inc. Method of making a miniature inductive device. 3,507,039, 4-21-70, Cl. 29-605.

Craiglow, Robert L.; Holt, John M.; and Iliff, Walter R., to Collins Radio Company. Optimum postdetection filter for microwave radiometric mapping system. 3,510,581, 5-5-70, Cl. 178-6.

Crain, Donald L.: *See—*
Kenton, Joseph R.; Crain, Donald L.; and Kleinschmidt, Roger F.,3,491,163.

Crain, James W. Measuring rod. 3,492,729, 2-3-70, Cl. 33-74.

Crain, John D.: *See—*
Modersohn, Charles W.; Burnham, Lewis A.; Melter, Joseph; and Crain, John D.,3,503,847.

Crain, Richard W.: *See—*
Zievers, James F.; Riley, Clay W.; and Crain, Richard W.,3,531,405.

Crain, Robert L.: *See—*
Hull, John L.; Crain, Robert L.; and Hill, Erwin F.,3,536,342.

Crain, Robert L.; and Holbert, Marvin L., Jr., to Gray Tool Company. Well completion apparatus and method. 3,489,221, 1-13-70, Cl. 166-290.
Nolan, Clyde E., Jr.; and Crain, Robert L.,3,523,578.
Phipps, Willis M.; Brashear, Enoch H.; and Crain, Robert L.,3,489,214.

Crainich, Victor A., Jr.: *See—*
Maierson, Theodore; and Crainich, Victor A., Jr.,3,494,872.

Crall, Hugh C.: *See—*
Finestone, Arnold B.; Niechwiadowicz, Michal; and Crall, Hugh C.,3,505,253.

Crall, Russell D., to Texas Instruments, Incorporated. Hydrophone array erection. 3,539,979, 11-10-70, Cl. 340-7.

Cram, Robert D., to High Voltage Engineering Corporation. High power chamber. 3,489,894, 1-13-70, Cl. 250-41.9

Cram, Robert D.: *See—*
Kingsley, Gordon F.; and Cram, Robert D.,3,499,141.

Cramer, Bernhard: *See—*
Kaiser, Wolfgang; and Cramer, Bernhard,3,498,216.

Cramer, Frank D. Automatic water sprinkling system. 3,488,000, 1-6-70, Cl. 239-63.

Cramer, Heinz; Hochrieser, Ludwig; and Stark, Bruno. Package for cartridges. 3,525,425, 8-25-70, Cl. 206-3.

Cramer Industries, Inc.: *See—*
Wehner, Norvin J., 3,547,394.

Cramer, John Henry; and Ness, Walter Eldon, to American Cyanamid Company. Pigmentary ferric ammonium ferrocyanide particle with cationic surfactant coating. 3,523,811, 8-11-70, Cl. 106-304.

Cramer Products, Inc.: *See—*
Spencer, Charles C., Jr., 3,542,032.

Cramer, Richard D., to Du Pont de Nemours, E. I., and Company. Preparation of 1,4-hexadiene from ethylene and butadiene with selected hydrocarbon- rhodium catalysts. 3,502,738, 3-24-70, Cl. 260-680.

Cramer, Richard J.; and Beeson, Robert O., to Western Sales and Supply Co., mesne. Bed for truck cabs. 3,524,673, 8-18-70, Cl. 296-23.

Cramer, Wilford Eugene; and Taylor, Robert A., to General Electric Company. Battery maintenance circuit for use with unreliable charging sources. 3,535,608, 10-20-70, Cl. 320-14.

Cramer, William H.: *See—*
Araujo, Roger J.; Cramer, William H.; and Stookey, Stanley D.,3,540,793.

Cramm, Russell H.: *See—*
McFadden, Russell T.; and Cramm, Russell H.,3,514,473.

Crampton, Felix Jeremy Philip; and Wilkinson, Terence Sidwell, to Conch International Methane Limited, mesne. Thermal power plants. 3,508,090, 4-21-70, Cl. 310-11.

Cramwinckel, Johannes Frederik, to N.V. Nieuwe Rotterdamsche Instrumentenfabriek 'Observator'. Magnetic flux valve type data transmission device for remote control of angular positions. 3,493,829, 2-3-70, Cl. 318-24.

Cran, William Broadbent Gordon, to Broadbent, Thomas, & Sons Limited. Folding of sheet material. 3,502,322, 3-24-70, Cl. 270-69.

Cranage, Bidwell C., to Stile-Craft Manufacturers, Inc. Nebulizer spray unit. 3,512,718, 5-19-70, Cl. 239-338.

Cranage, Bidwell C. Coupler assembly. 3,544,257, 12-1-70, Cl. 137-360.

Crandall, John W.; and Grimm, Richard C., to Union Carbide Corporation. Separation of organic acids by reactive-extraction with amines. 3,541,121, 11-17-70, Cl. 260-419.

Crandall, Morris N. Vapor-condensing device. 3,524,437, 8-18-70, Cl. 123-119.

Crandall, Robert P.; and Phillips, Ronald A., to Eastman Kodak Company. Strip handling system. 3,493,193, 2-3-70, Cl. 242-203.

Crandall, Robert P.; and Phillips, Ronald A., to Eastman Kodak Company. Magazine interlock mechanism. 3,532,292, 10-6-70, Cl. 242-198.

Crandall, Robert S.: *See—*
Perkins, James A.; and Crandall, Robert S.,3,490,394.

Crandall, Walter E., to Northrop Corporation. Microsecond signal recording employing magnetic cable within delay line. 3,529,304, 9-15-70, Cl. 340-174.1

Crandell, George M.; and Gates, Russell C., Jr., to Gaydell, Inc. Temperature responsive devices and method of fabricating same. 3,535,770, 10-27-70, Cl. 29-475.

Crane, Arthur T., to General Motors Corporation. Pneumatic speed transducer system. 3,527,107, 9-8-70, Cl. 73-519.

Crane, Burke J.; and Pasek, Frank S., to Rixson Inc. Apparatus for overcoming the residual magnetism in an electromagnetic door holder. 3,533,652, 10-13-70, Cl. 292-251.5

Crane Canada Limited: *See—*
Zoebelein, Robert George, 3,533,200.

Crane, Carlton Lee, to Eastman Kodak Company. Process for reducing the viscosity of cellulose ethers. 3,497,496, 2-24-70, Cl. 260-232.

Crane, Carlton L., to Eastman Kodak Company. Process for the manufacture of cellulose esters and ethers of polycarboxylic acid. 3,489,743, 1-13-70, Cl. 260-225.

Crane, Carlton L.: *See—*
Malm, Carl J.; and Crane, Carlton L.,3,505,312.

Crane Co.: *See—*
Cantalupo, Francis J., 3,515,250.
Crits, George J., 3,531,401.
Crits, George J., 3,537,989.
Fife, Robert J., 3,550,633.
Gibson, William H., 3,500,755.
Gibson, William H., 3,523,559.
Hansen, George E.; and Korzenowski, Anton, 3,531,085.
Hansen, George E.; and Gaglio, Peter A., 3,532,111.
Kanter, Jerome J., 3,529,654.
Williams, Hubert L., 3,537,164.

Crane, Dale L.: *See—*
Lucas, Malcolm B.; and Crane, Dale L.,3,493,150.

Crane, Edward J., to International Agri Systems, Inc. Hock cutter. 3,522,622, 8-4-70, Cl. 17-11.

Crane, Edward J., to International Agri-Systems, Inc. Method of picking poultry. 3,541,636, 11-24-70, Cl. 17-47.

Crane, George J., to Huron Nassau Limited. Continuous electrolytic cell process. 3,503,858, 3-31-70, Cl. 204-82.

Crane, George J., to DuVernet, Ernest Arthur, and Crane, Selma Leslie, executors of the last will of said Crane, George J., deceased assor to Huron Nassau Ltd. Continuous manufacture of chlorates and perchlorates. 3,518,173, 6-30-70, Cl. 204-95.

Crane, H. W., Company: *See—*
Fox, Edward I., 3,487,705.

Crane, Hewitt D.: *See—*
Cornsweet, Tom N.; and Crane, Hewitt D.,3,536,383.

Crane, Jack W.: *See—*
Grey, Donald M.; Butler, Lee D.; Welker, Jerry W.; and Crane, Jack W.,3,502,230.

Crane, Jack W.; and Burkholder, James R., to Sperry Rand Corporation. Baler. 3,487,771, 1-6-70, Cl. 100-45.

Crane, Oliver D., to U.S. Philips Corporation, mesne. Recovery of sulfur and hydrogen sulfide from admixture with benzene by flash distillation with subsequent bottoms distillation. 3,495,942, 2-17-70, Cl. 23-225.

Crane Packing Company: *See—*
Bilbrey, Robert A., 3,508,998.
Gardner, James F., 3,499,653.
Wheelock, Edward A., 3,511,512.
Wheelock, Edward A., 3,545,770.

Crane, Paul J.: *See—*
Reese, Glenn A.; and Crane, Paul J.,3,505,472.

Crane, Robert H., to Sparton Corporation. Conveyed article positioning apparatus. 3,512,624, 5-19-70, Cl. 198-19.

Crane, Robert: *See—*
Anthony, David; and Crane, Robert,3,527,236.

Crane, Selma Leslie: *See—*
Crane, George J., 3,518,173.

Crane, Walton B., to Allied Plastics Company. Slit bag for produce and the like. 3,495,764, 2-17-70, Cl. 229-53.

Crane, Walton B., to Allied Plastics Company. Garment boxing method and apparatus. 3,503,176, 3-31-70, Cl. 53-29.

Crane, Walton B., to Allied Plastics Company. Garment hanger for two piece ladies swimsuit or the like. 3,547,321, 12-15-70, Cl. 223-88.

Cranfill, John D., to Valve Corporation of America, mesne. Securing a label to an article. 3,520,751, 7-14-70, Cl. 156-220.

Cranford, William B.: *See—*
Ingruber, Otto V.; Cranford, William B.; Avon, George L.; Watson, James K.; and Neal, Jack L.,3,525,667.

Crank, Geoffrey James, to Postmaster General, Her Majesty's. Repeater with power separation filters. 3,521,012, 7-21-70, Cl. 179-170.

Cranley, Vincent J. Immersion heater. 3,536,893, 10-27-70, Cl. 219-523.

Cranskens, George: *See—*
Limberger, Walter; Opravil, Egon; and Cranskens, George,3,510,218.

Cranston, Albert E., Jr.; Cranston, Albert William; and Rowell, William J., to Devco, Inc. Wrapper dispenser with needle bar pickup. 3,536,319, 10-27-70, Cl. 271-21.

Cranston, Albert William: *See—*
Cranston, Albert E., Jr.; Cranston, Albert William; and Rowell, William J.,3,536,319.

Crapsey, Arthur H., to Eastman Kodak Company. Cartridge and reel alighment means. 3,491,965, 1-27-70, Cl. 242-74.1

Crapuchettes, Paul W., to Litton Precision Products, Inc. Broadband gain equalizer. 3,508,173, 4-21-70, Cl. 333-28.

Crary, Thomas H. Sectional structure. 3,491,896, 1-27-70, Cl. 211-148.

Craske, John David; and Szonyi, Charlotte, to Lever Brothers Company. Production and treatment of soap. 3,542,823, 11-24-70, Cl. 260-418.

Crast, Leonard Bruce, Jr., to Bristol-Myers Company. Derivatives of a-aminobenzylpenicillin. 3,489,746, 1-13-70, Cl. 260-239.1

Crast, Leonard Bruce, Jr., to Bristol-Myers Company. 7-Aminocephalosporanic and decephalosporanic acid derivatives. 3,489,750, 1-13-70, Cl. 260-243.

Crast, Leonard Bruce, Jr., to Bristol-Myers Company. 7-Aminocephalosporanic and decephalosporanic acid derivatives. 3,489,751, 1-13-70, Cl. 260-243.

Crast, Leonard Bruce, Jr., to Bristol-Myers Company. 7-Aminocephalosporanic and decephalosporanic acid derivatives. 3,489,752, 1-13-70, Cl. 260-243.

Crast, Leonard Bruce, Jr., to Bristol-Myers Company. Pyrimidinyl-or diazepinyl- thioacetamidopenicillanic acids. 3,499,885, 3-10-70, Cl. 260-239.1

Crast, Leonard Bruce, Jr., to Bristol-Myers Company. Pyrimidinyl-or diazepinylthioacetamidocephalosporanic acids. 3,499,893, 3-10-70, Cl. 260-243.

Crast, Leonard Bruce, Jr., to Bristol-Myers Company. Derivatives of α-aminobenzylpenicillin. 3,517,023, 6-23-70, Cl. 260-306.7

Craste, Maurice H., to Societe des Grands Travaux de Marseille, Societe Anonyme. Method and means for neutralizing swell during submarine pipeline laying operations. 3,524,326, 8-18-70, Cl. 61-72.3

Craster, William, to Plessey Company Limited, The. Piezoelectric transducer element. 3,546,497, 12-8-70, Cl. 310-8.2

Crater Controls Limited: *See—*
Melling, Geoffrey Frank Robert, 3,549,865.

Crathern, Charles F.H., III. Registration apparatus. 3,522,129, 7-28-70, Cl. 156-364.

Craven, Donald: *See—*
Lloyd, Arthur Leslie; Craven, Donald; and Marshall, David,3,496,721.

Craven, George Frederick; and Karbowiak, Antoni Emil, to International Standard Electric Corporation. PTM to PCM and PCM to PTM conversion circuitry. 3,500,387, 3-10-70, Cl. 340-347.

Craven, Herman R., Jr.; Andrews, Boley A.; and Van Wye, William J., to Vendo Company, The. Split column package storage mechanism for cigarette vending machine. 3,498,498, 3-3-70, Cl. 221-129.

Craven, Herman R., Jr.; and Fastner, Karl D., to Vendo Company, The. Multiple price slant shelf dispensing machine for cylindrical articles. 3,489,315, 1-13-70, Cl. 221-125.

Craven, Herman R.: *See—*
Baxendale, John W.; and Craven, Herman R.,3,498,497.

Craven, Jack L.; and Marjoram, Ernest B., to Electro-Photo Corporation. Self-threading camera cassette. 3,550,882, 12-29-70, Cl. 242-197.

Cravens, Robert D.; and DePass, Ernest T., said DePass assor. to Union Camp Corporation. Five panel folder machine. 3,514,922, 6-2-70, Cl. 53-374.

Crawford & Russell Incorporated: *See—*
Crawford, James R., 3,513,145.

Crawford, Allan H., to Mohasco Industries, Inc. Reclining chair with movable headrest. 3,531,156, 9-29-70, Cl. 297-61.

Crawford, Allan H., to Mohasco Industries, Inc. Textile apparatus and method for transversely aligning pattern marks. 3,550,543, 12-29-70, Cl. 112-79.

Crawford, Arthur R., to Electronics Marketing Corporation. Engine timer. 3,505,864, 4-14-70, Cl. 73-118.

Crawford, Carl: *See—*
Crawford, N. B.,3,529,311.

Crawford, Charles A. Automatic wheel alignment mechanism for automotive vehicles. 3,498,630, 3-3-70, Cl. 280-87.

Crawford, Donald C.; and Wech, Robert J., to FMC Corporation. Bag machines. 3,541,929, 11-24-70, Cl. 93-33.

Crawford, Duffer B.; and Norenburg, Johannes C., to Pullman Incorporated. Separation of low-boiling gas mixtures. 3,543,528, 12-1-70, Cl. 62-22.

Crawford, Edward N.; and White, Jack M., to ACF Industries, Incorporated. By-pass and pressure relief valve. 3,520,320, 7-14-70, Cl. 137-115.

Crawford Fitting Company: *See—*
Barth, Ross E.; and Viers, John T., 3,487,921.
Szohatzky, Zoltan; and Zahuranec, Emery J., 3,520,506.

Crawford, Francis W., to Kansas State University Research Foundation. Combination electric and internal combustion power unit for automobiles. 3,515,968, 6-2-70, Cl. 318-139.

Crawford, Horace R.: *See—*
Griffith, Edward D.; and Crawford, Horace R.,3,489,240.
Pruitt, Gail T.; Brown, William E.; and Crawford, Horace R.,3,533,952.

Crawford, Irvin H., to Eastman Kodak Company. Photographic papers. 3,501,298, 3-17-70, Cl. 96-85.

Crawford, Jack E.; Edwards, Ralph W.; Henze, Edward D.; and Wu, William C. L., to Mobil Oil Corporation. Process and apparatus for polymerizing liquids. 3,522,214, 7-28-70, Cl. 260-75.

Crawford, James E.: *See—*
Strong, Bernard; and Crawford, James E.,3,490,316.

Crawford, James M., Sr. Clapping mittens for increasing crowd clapping effect. 3,490,410, 1-20-70, Cl. 116-67.

Crawford, James R., to Crawford & Russell Incorporated. Continuous mass polymerization processes. 3,513,145, 5-19-70, Cl. 260-93.5

Crawford, Jay D., to Martinson Manufacturing Company, Inc. Well cap device. 3,504,742, 4-7-70, Cl. 166-75.

Crawford, Jay. Bookbinding oversewing machine attachment. 3,502,043, 3-24-70, Cl. 112-21.

Crawford, Jesse. Portable landing zone. 3,539,986, 11-10-70, Cl. 340-26.

Crawford, John K.; Croll, Donald C.; Hulsizer, John C.; Kendall, Frank T.; and Schaeffer, George B., Jr., to International Business Machines Corporation. Data display system. 3,540,033, 11-10-70, Cl. 340-324.

Crawford, John M. Multiple motor hydraulic drive system. 3,509,721, 5-5-70, Cl. 60-53.

Crawford, Le Roy A.: *See—*
Sturla, Peter L.; and Crawford, Le Roy A.,3,489,080.

Crawford, Malcolm D.: *See—*
Watts, Paul J.; and Crawford, Malcolm D.,3,526,272.

Crawford, N. B., deceased (by Crawford, Carl; administrator). Crib bouncer for tranquilizing infants. 3,529,311, 9-22-70, Cl. 5-109.

Crawford, Paul D. Orbital manned space flight game. 3,514,111, 5-26-70, Cl. 273-134.

Crawford, Philip N.: *See—*
Bundschuh, John J.; and Crawford, Philip N.,3,551,038.
Pickens, Gerald F.; Kirn, Thomas G.; and Crawford, Philip N.,3,537,106.

Crawford, Ralph W.; and Martin, Paul A., to Fisher-Price Toys, Inc. Toy viewer simulating a flash camera and including a sounder. 3,490,171, 1-20-70, Cl. 46-175.

Crawford, Raymond B.: *See—*
Tewksbury, Floyd L., Jr.; Crawford, Raymond B.; and Cain, Audley L.,3,489,400.
Tewksbury, Floyd L., Jr.; Crawford, Raymond B.; and Cain, Audley L.,3,489,800.

Crawford, Richard A., to National-Standard Company. Woven filter cloth. 3,502,116, 3-24-70, Cl. 139-425.

Crawford, Robert F.: *See—*
Goldsmith, Harry; and Crawford, Robert F.,3,515,866.
Hunter, Don L.; Kitasaki, Kiyoshi; and Crawford, Robert F.,3,516,986.
Le Fevre, Cecil W.; Hunter, Don L.; Kitasai, Kiyoshi; and Crawford, Robert F.,3,497,344.

Crawford, Robert H., to Texas Instruments, Incorporated. High input impedance circuit for a field effect transistor including capacitive gate biasing means. 3,492,511, 1-27-70, Cl. 307-304.

Crawford, Robert Hudson; and Biard, James R., to Texas Instruments, Incorporated. Binary decoder. 3,541,543, 11-17-70, Cl. 340-324.

Crawford, William A. Foamed plastic floormat with perforated envelope. 3,526,564, 9-1-70, Cl. 161-43.

Crawford, William C.: *See—*
Tucker, Richard B. C.; Fracalossi, Roland N.; Crawford, William C.; and Sollers, Joseph S.,3,507,495.

Crawford, William E.: *See—*
United States of America,National Aeronautics and Space Administration, Administrator, 3,549,955.

Crawford, William H.: *See—*
Matzek, Norman E.; and Crawford, William H.,3,524,870.

Crawford, William N.: *See—*
Ratcliffe, Edward; and Crawford, William N.,3,513,950.

Crawford, Winford M., to United States of America, Air Force. Apparatus for measuring fluid level in a container. 3,505,869, 4-14-70, Cl. 73-313.

Crawley, John: *See—*
Pennell, John Antony; and Crawley, John,3,520,164.

Crawley Machinery Co.: *See—*
Sarring, Ernest J., 3,494,455.

Crayton, Philip H.: *See—*
Whitney, Ellswnrth D.; and Crayton, Philip H.,3,549,402.

CRC-Crose International Inc.: *See—*
Nelson, Jerome W., 3,551,636.

Creagan, Robert J.: *See—*
Collier, Alan R.; and Creagan, Robert J.,3,528,884.

Creager, John E., to General Motors Corporation. Pressure transducer. 3,504,324, 3-31-70, Cl. 338-42.

Cream, Douglas S.; and Cream, Joyce S. Breech bolt locking means comprising a resilient split ring having locking lugs thereon. 3,540,147, 11-17-70, Cl. 42-16.

Cream, Joyce S.: *See—*
Cream, Douglas S.; and Cream, Joyce S.,3,540,147.

Creamer, Charles E., to Union Carbide Corporation. Siloxamine compounds. 3,519,601, 7-7-70, Cl. 260-46.5

Creamer, Charles E., to Union Carbide Corporation. Bis[tri(dimethylamino)silyl]ethane. 3,535,357, 10-20-70, Cl. 260-448.2

Creamer, Weldon: *See—*
Osborn, Peter E.; Creamer, Weldon; and Ferrell, Herbert W.,3,501,992.

Crean, Robert B., to Mobil Oil Corporation. Asphaltic compositions. 3,510,328, 5-5-70, Cl. 106-273.

Crean, Robert B., to Mobil Oil Corporation. Wax-polyolefin emulsions. 3,520,842, 7-21-70, Cl. 260-23.

Creaser, Leonard F.: *See—*
Reece, Donald; Creaser, Leonard F.; and Boyle, George J.,3,502,439.

Creative Environments Inc.: *See—*
Solo, Alan J., 3,487,874.
Solo, Alan J., 3,501,018.

Creative Packaging, Incorporated: *See—*
Hayes, Thomas H.; and Gayle, Robert, 3,495,567.

Creative Systems, Inc.: *See—*
French, Walter K., 3,546,398.

Crecelius, John D.; Arriola, William A.; Sumnicht, Howard I.; Regelson, Ephraim; and Silberberg, George G., to United States of America, Navy. Attitude and range determining system. 3,546,376, 12-8-70, Cl. 178-6.8

Crecelius, Ovid M. Illuminated fishing lure. 3,535,812, 10-27-70, Cl. 43-17.6

Credner, Karl: *See—*
Renwanz, Gerhard; Credner, Karl; Geisel, Berthold; and Engelhard, Hermann,3,551,491.

Credo, Renate: *See—*
Burczyk, Leonhard; Credo, Renate; Faulhaber, Ernst; and Muhlsteph, Willibald,3,502,501.

Cree, Robert Franklin: *See—*
Gatti, Arno; and Cree, Robert Franklin,3,505,014.

Creech, Bobby A.: *See—*
Barton, Robert S.; Creech, Bobby A.; Dent, Benjamin A.; Hauck, Erwin A.; and McKeeman, William M.,3,546,677.
Barton, Robert S.; Creech, Bobby A.; Dent, Benjamin A.; Hauck, Erwin A.; and Mc Keeman, William M.,3,548,384.

Creech, C. B.: *See—*
Ronay, Marshall J., 3,519,174.

Creed & Company Limited: *See—*
Mason, Frederick Percival; and Suban, Alfred Lawrence Joseph Luke, 3,492,422.

Creed, Sherman H., to FMC Corporation. Container handling apparatus. 3,528,363, 9-15-70, Cl. 99-365.

Creed, Sherman H., to FMC Corporation. Container filling machine. 3,543,813, 12-1-70, Cl. 141-148.

Creek, John O. Rotary engine. 3,548,789, 12-22-70, Cl. 123-8.41

Creek, Kenneth O.; and Leiby, David W., to United States of America, Atomic Energy Commission. Depth gauge probe assembly. 3,535,803, 10-27-70, Cl. 33-174.

Crees, Silas Ray. Wire bender. 3,511,074, 5-12-70, Cl. 72-389.

Creese, Earl D.: *See—*
Jones, Hugh F.; and Creese, Earl D.,3,522,165.

Creffield, David F., to USM Corporation. Cutting press having improved means for clamping dies on the beam. 3,527,132, 9-8-70, Cl. 83-698.

Creger, Paul L., to Parke, Davis & Company. Process for the production of steroidal lactone compounds and intermediates thereof. 3,506,652, 4-14-70, Cl. 260-239.57

Cregier Electrical Mfg. Co.: *See—*
Schubert, Paul E., 3,525,906.
Schubert, Paul E., 3,525,927.

Cregier, Raymond W. Mounting bracket with banding structure. 3,533,588, 10-13-70, Cl. 248-309.

Creighton, Charles Patrick. Corneal contact lens with hydrophilic marginal rim portion. 3,489,491, 1-13-70, Cl. 351-160.

Creighton, Eugene J.: *See—*
Clark, Kendall; Beck, George C.; Creighton, Eugene J.; DeTurris, Frank L.; Drop, Joseph G.; Godat, Jean J. L.; Larsen, Arne H.; Rajac, Thomas J.; Santillo, George R., Jr.; and Schueike, Walter J.,3,499,203.

Creith, Lou C.; and Daniels, Frank J., to Olin Mathieson Chemical Corporation. Floating roof. 3,511,406, 5-12-70, Cl. 220-26.

Cremaschi, Jorge A.: *See—*
Ehlers, Johann F.; Cremaschi, Jorge A.; and Salgado, Alvaro,3,513,126.

Cremeans, George E., to Battelle Development Corporation, The. Photographic process using polyacetyleneicdioic acid crystals. 3,501,297, 3-17-70, Cl. 96-48.

Cremer, Gottfried; and Behrens, Heinz. Tunnel kilns with roof. 3,494,601, 2-10-70, Cl. 263-28.

Cremer, Joseph: *See—*
Beltz, Klaus; Cremer, Joseph; Muller-Schiedmayer, Gunther; and Thomas, Friedrich,3,526,482.

Cremer, Joseph; Thomas, Friedrich; and Harnisch, Heinz, to Knapsack Aktiengesellschaft. Process for the manufacture of phosphorus sulfides. 3,524,725, 8-18-70, Cl. 23-206.

Cremer, William C. Sewing machine cutter attachment. 3,550,545, 12-29-70, Cl. 112-130.

Cremieux, George V., to American Home Products Corporation. Tablet counting and bottling machine. 3,490,197, 1-20-70, Cl. 53-55.

Cremieux, George V., to American Home Products Corporation. Apparatus for wadding bottles. 3,537,228, 11-3-70, Cl. 53-63.

Crenne, Noel: *See—*
Achard, Rene Victor Julien; and Crenne, Nocl,3,549,709.

Crenshaw, Walter J.; and Durham, Herman A., to Riegel Textile Corporation. Apparatus and method for random dyeing skeins of textile yarn. 3,541,635, 11-24-70, Cl. 8-155.2

Crenshaw, Walter J.; and Hicks, Hoke S., to Riegel Textile Corporation, mesne. Velvet fabric with randomly gapped pile face. 3,542,086, 11-24-70, Cl. 139-402.

Crescent Machine & Nipple Co.: *See—*
Dalm, Harry A., 3,487,791.

Crescent Metal Products, Inc.: *See—*
D'Anka, Blaise, 3,532,153.

Crescent Niagara Corporation: *See—*
Angquist, Torsten F., 3,521,510.
Angquist, Torsten F., 3,545,312.

Crescent Technology Corporation: *See—*
Ritter, Robert L.; and Hendries, Ronald E., 3,538,383.

Creskoff, Jacob J., to Vacuum Concrete Corporation of America. Vacuum lifter with prestressing action. 3,506,297, 4-14-70, Cl. 294-65.

Creskoff, Jacob J., to Vacuum Concrete Corporation of America. Method and apparatus for treating concrete with a partial vacuum. 3,506,747, 4-14-70, Cl. 264-87.

Cress, David R., to Parker Pen Company, The. Solid plastic nib. 3,507,600, 4-21-70, Cl. 401-258.

Cress, Vernor B., Jr.: *See—*
Schmidt, Jack W.; and Cress, Vernor B., Jr.,3,525,980.

Cressey, John R.: *See—*
Baker, Hugh M., Jr.; and Cressey, John R.,3,550,090.

Cressey, Richard C. Motion picture camera apparatus. 3,490,351, 1-20-70, Cl. 95-86.

Cresskill-Stillman Rubber Corporation: *See—*
Avery, Charles C., 3,490,776.

Cressman, Fred D., to Canada Barrels & Kegs Limited. Conveyor bracket. 3,545,601, 12-8-70, Cl. 198-192.

Cressman, George W.: *See—*
Weber, Kurt H.; and Cressman, George W.,3,506,385.

Cressman, Homer W. J.; and Tuite, Robert J., to Eastman Kodak Company. Photographic elements comprising novel U.V.-absorbing optical brightening agents. 3,499,762, 3-10-70, Cl. 96-82.

Cresswell, Roger Anthony, to Rolls-Royce Limited. Gas turbine power plant. 3,545,210, 12-8-70, Cl. 60-226.

Cresswell, Ronald Morton; and Mentha, John William, to Burroughs Wellcome & Co., (U.S.A.) Inc. Preparation of benzyl cyanoacetals. 3,513,185, 5-19-70, Cl. 260-465.

Cressy, Clifford E. Fastener attachment. 3,517,874, 6-30-70, Cl. 227-144.

Crestshore Engineering Limited: *See—*
Maton, Maurice E. G., 3,492,715.

Creswell, John D., to Land Pyrometers Limited. Sampling device for liquid metal. 3,534,614, 10-20-70, Cl. 73-425.6

Crete, Charles A.: *See—*
Crete, Darrel R., 3,507,574.

Crete, Darrel R., to Crete, Charles A. Color enlarger and printer. 3,507,574, 4-21-70, Cl. 355-38.

Cretella, Biagio A.: *See—*
Babusci, Louis D.; Cretella, Biagio A.; Feder, David O.; and Koontz, Donald E.,3,490,954.
Babusci, Louis D.; Cretella, Biagio A.; Feder, David O.; and Koontz, Donald E.,3,532,545.

Cretescu, Alex Armand: *See—*
Hoppe, Egon; and Cretescu, Alex Armand,3,505,582.

Creve Coeur Mfg. Co.: *See—*
Peterson, Roger A.; Elson, John P.; Smith, Charles R.; and Slagell, Lloyd D., 3,519,047.

Creviston, Leo J.; and Johnson, Arthur G. Automatic motion lure and alert for fishing lines. 3,550,302, 12-29-70, Cl. 43-16.

Crew, Wynn D. Rotary microfilm mounting machine and method. 3,507,726, 4-21-70, Cl. 156-108.

Crewe, Peter Rowland; and Manning, Michael Ivan, to British Hovercraft Corporation Limited. Flexible hulls. 3,512,603, 5-19-70, Cl. 180-127.

Crews, John H., Jr.; and Davis, William T., to United States of America, National Aeronautics and Space Administration. Strain-coupled servo-control system. 3,546,931, 12-15-70, Cl. 73-90.

Crews, Sam Tribble: *See—*
Henry, Ralph La Verne; Rollins, Henry Moak; Crews, Sam Tribble; and Dixon, James Wendell,3,542,404.

Crewson, Walter F. J.: *See—*
Kraemer, John H.; Rome, James A.; and Crewson, Walter F. J.,3,509,508.

Cribb, Herbert E., to United States of America, National Aeronautics and Space Administration. Weatherproof helix antenna. 3,509,578, 4-28-70, Cl. 343-873.

Cribb, Herbert E., to United States of America, National Aeronautics and Space Administration. Parasitic probe antenna. 3,526,897, 9-1-70, Cl. 343-703.

Cribb, Herbert E., to United States of America, National Aeronautics and Space Administration. VHF/UHF parasitic probe antenna. 3,540,056, 11-10-70, Cl. 343-703.

Cribb, Robert William. Arc-welding electrode holder. 3,493,719, 2-3-70, Cl. 219-142.

Criblez, Roger, to Hatebur, F. B., A.G. Transmissions. 3,489,021, 1-13-70, Cl. 74-40.

Cricchi, James R.: *See—*
Squire, Jon S.; and Cricchi, James R.,3,539,880.

Crickmer, Charles D. Slip assembly. 3,513,511, 5-26-70, Cl. 24-263.

Crickmer, Charles D. Kelly bushing floating drive means and method. 3,513,665, 5-26-70, Cl. 64-23.5

Crickmer, Charles D. Master bushing assembly. 3,527,064, 9-8-70, Cl. 64-23.5

Crickmer, Charles D. Conformable slip. 3,531,836, 10-6-70, Cl. 24-263.

Crider, Harold E.: *See—*
Bigham, James E.; and Crider, Harold E.,3,501,666.

Crile, Eugene E., to Builders Equipment Company. Pallet handling machine. 3,501,028, 3-17-70, Cl. 214-16.42

Crim, William H., to Singer Company, The. High-frequency acoustic delay line. 3,517,343, 6-23-70, Cl. 333-30.

Crimmins, David J.: *See—*
Fernandes, Jacinto; and Crimmins, David J.,3,488,432.

Crimmins, David J., to Thomas & Betts Corporation. Interconnection system for a circuit board assembly. 3,508,187, 4-21-70, Cl. 339-17.

Crimmins, David J.; Basile, Rocco F.; and Breakfield, Joseph W., to Thomas & Betts Co., The. Method and apparatus for making flexible multiconductor flat cable. 3,523,844, 8-11-70, Cl. 156-52.

Cripe, Frederick E.; and De Longa, James C., to United Aircraft Corporation. Sectional annular combustion chamber. 3,520,134, 7-14-70, Cl. 60-39.69

Cripe, Maxwell L., to Bendix Corporation, The. Brake proportioning means. 3,517,970, 6-30-70, Cl. 303-6.

Cripe, Robert W.; and Koculyn, George. Automatic tension compensation for chain belt in a conveyor system. 3,500,989, 3-17-70, Cl. 198-136.

Crippa, Eugene R., to United States of America, Navy. Digitally-controlled high speed capacitor tuning apparatus. 3,522,497, 8-4-70, Cl. 317-250.

Crippen, Herbert O.; and Crippen, Ruby L. Bedspread support. 3,518,706, 7-7-70, Cl. 5-321.

Crippen, Ruby L.: *See—*
Crippen, Herbert O.; and Crippen, Ruby L.,3,518,706.

Crisanti, Armando. Apparatus for cutting the hair of the head and body. 3,523,364, 8-11-70, Cl. 30-30.

Crisci, Harry. Tamper proof bottle closure. 3,504,818, 4-7-70, Cl. 215-42.

Criscimagna, Tony N., to International Business Machines Corporation. Display system. 3,524,182, 8-11-70, Cl. 340-324.

Criscimagna, Tony N.; and Floros, Theodore G., to International Business Machines Corporation. Display system. 3,524,181, 8-11-70, Cl. 340-324.

Criscimagna, Tony N.; and Hinkein, Donald J., to International Business Machines Corporation. Display system using cathode ray tube deflection yoke non-linearity to obtain curved strokes. 3,540,032, 11-10-70, Cl. 340-324.

Criscione, John M.; and Volk, Herbert F., to Union Carbide Corporation. Oxidation resistant graphite composite article. 3,503,118, 3-31-70, Cl. 29-472.9

Criscuolo, Edward L.: *See—*
Dyer, Charles H.; Criscuolo, Edward L.; and Polansky, Daniel,3,536,915.

Crisman, Donald M.; and Kluber, Joh 'E. Finger bridge for billiard players. 3,544,111, 12-1-70, Cl. 273-24.

Crisp, Harold A.; Oughton, John Francis; Sharp, Christopher John; and Wilkinson, Peter Alfred, to Glaxo Laboratories Limited. Recovery of N-(7-2'-thienylacetamidoceph-3-em-3- ylmethyl) pyridinium-4-carboxylate from an acid addition salt thereof. 3,498,979, 3-3-70, Cl. 260-243.

Crisp, Harold A.: *See—*
Sharp, Christopher J.; and Crisp, Harold A.,3,520,884.

Crisp, James M.; and Van Pelt, Richard W., to International Business Machines Corporation. Digital position detection and velocity compensation system. 3,550,878, 12-29-70, Cl. 242-184.

Crisp, Roy: *See—*
Woolley, Eric Maurice; Wright, George; Crisp, Roy; and Atkinson, Robert Dennis,3,545,410.

Crispell, Roger L., to General Motors Corporation. Control knob arrangement for a range. 3,534,706, 10-20-70, Cl. 116-124.

Crisplant A/S: *See—*
Nielsen, Jacob August, 3,523,618.

Criss, Ramon D.: *See—*
Hays, Rupert F.; Phillips, John M.; Criss, Ramon D.; and Hall, Edmund D.,3,531,869.

Crissy, Charles F.: *See—*
Evans, Bryce B.; and Crissy, Charles F.,3,537,478.

Crist, Buckley, to Jaclo, Inc. Shower head. 3,545,681, 12-8-70, Cl. 239-449.

Crist, Earl E.; and Furry, Lyman B. Dryer and conveyer apparatus for coated materials. 3,499,221, 3-10-70, Cl. 34-156.

Crist, Elmer E.; Palazzolo, Sam; and Cooke, Ronald D., to Beloit Corporation. Rotary steam joint. 3,508,767, 4-28-70, Cl. 285-95.

Crist, Ralph P., to United States of America, Navy. Expendable bathythermograph for submarines and device for launching. 3,524,347, 8-18-70, Cl. 73-170.

Crist, Vernon W., to Sta Tite Corporation. Self-contained electric fence control cable. 3,504,892, 4-7-70, Cl. 256-10.

Cristiani, Athos, to American Machine & Foundry Company. Tobacco rod forming method and device. 3,548,837, 12-22-70, Cl. 131-84.

Cristiano, Frank, Jr.; and Coit, Roland L., to Westinghouse Electric Corporation. Recirculating multistage flash evaporation system and method. 3,507,754, 4-21-70, Cl. 203-7.

Criswell, Donald E. Camper kitchen. 3,543,890, 12-1-70, Cl. 190-12.

Criswell, Eleanor Camp. Optokinetic perceptual learning device and method for stimulating sensory awareness and learning. 3,496,649, 2-24-70, Cl. 35-1.

Critchell, Dean J.; Conrose, Charles W.; and Estes, Cameron B., to Eastman Kodak Company. Dialyzing apparatus and method of making the same. 3,501,010, 3-17-70, Cl. 210-321.

Critcher, John L., to AAI Corporation. Actuator. 3,494,260, 2-10-70, Cl. 92-91.

Critchfield, Frank E.; and Whitman, Robert D., to Union Carbide Corporation. Heat sealable polyether-urethane foam laminates. 3,497,416, 2-24-70, Cl. 161-190.

Critchlow, Arthur J.: *See—*
Comer, Donald T.; and Critchlow, Arthur J.,3,507,349.

Crites, Darell A. Stringed instrument with pre-programmed instantaneous selection of multiple chromatic changes. 3,494,238, 2-10-70, Cl. 84-266.

Crits, George J., to Crane Co. Method of regenerating ion exchangers. 3,531,401, 9-29-70, Cl. 210-34.

Crits, George J., to Crane Co. Demineralization system. 3,537,989, 11-3-70, Cl. 210-32.

Crittenden, Estil G. Process and apparatus for producing photographic blockers. 3,535,434, 10-20-70, Cl. 178-5.2

Crittenden, Geoffrey H., to Pececo Inc. Anti-sway mechanism. 3,532,324, 10-6-70, Cl. 254-144.

Crittendon, Charles E.: *See—*
von Schmeling Bogislav; Covey, Rupert A.; and Crittendon, Charles E.,3,503,730.

Crivello, Mike P.; and Schmidt, Howard A., to McGraw-Edison Company. Tamper-proof locking assembly for underground electrical vaults. 3,508,363, 4-28-70, Cl. 52-20.

Croall, Milton L.; and Bell, Raymond J., to FMC Corporation. Magnetic transfer apparatus. 3,489,261, 1-13-70, Cl. 198-25.

Croce, Gianfranco, to Officine Cimbali Giuseppe S.p.A. Coffee machine. 3,537,383, 11-3-70, Cl. 99-289.

Croce, Louis J.; Bajars, Laimonis; and Gabliks, Maigonis, to Petro-Tex Chemical Corporation. Dehydrogenation of organic compounds. 3,526,675, 9-1-70, Cl. 260-680.

Crocker, Guy J., to Johnson & Johnson. Pressure-sensitive adhesive product. 3,502,497, 3-24-70, Cl. 117-68.5

Crocker, Guy J.; and Doehnert, Donald F., to Johnson & Johnson. Modified acrylate adhesive product. 3,551,391, 12-29-70, Cl. 260-78.5

Crocker, Guy J.; and Puskadi, Frank, to Johnson & Johnson. Printable adhesive product. 3,543,920, 12-1-70, Cl. 206-59.

Crocker, Leon B.; Carter, Robert; Amos, Ralph A.; Le Proux, E. John; and Gregory, Charles A., Jr., to Power Systems and Controls, Incorporated. No-break power system. 3,526,778, 9-1-70, Cl. 290-30.

Crocker, Leon B.: *See—*
Farmer, Lowell T.; and Crocker, Leon B.,3,514,621.

Crocker, Weyman S., to Pneumo Dynamics Corporation. Fan seal. 3,519,277, 7-7-70, Cl. 277-25.

Crockett, John M., to Canadian Westinghouse Company, Limited. Product responsive relay with a variable -Q filter. 3,538,384, 11-3-70, Cl. 317-27.

Crockett, Sydney R., to United States of America, Navy. Apogee switch. 3,501,604, 3-17-70, Cl. 200-61.45

Crockett, Sydney R., to United States of America, Navy. Apogee sensing switch. 3,508,019, 4-21-70, Cl. 200-61.45

Crockett, William E.: *See—*
Brown, William F.; Brodeur, Charles H.; and Crockett, William E.,3,546,107.
Brown, William F.; Crockett, William E.; and Brodeur, Charles H.,3,549,514.

Croft, Brian Thomas: *See—*
Goodacre Ceci; and Croft, Brian Thomas,3,529,689.

Croft, John Arthur Phillip, to Romac Industries Limited. Automobile safety belt buckles. 3,538,558, 11-10-70, Cl. 24-230.

Croft, Kenneth, to Imperial Chemical Industries Limited. Face cutting machine. 3,492,896, 2-3-70, Cl. 77-73.

Croft Metal Products, Inc.: *See—*
Bullock, Robert E., 3,502,175.
Homery, Alex L., 3,495,684.
Mac Norius, Bronislaus Joseph, 3,527,280.

Croft, Paul H. Drag wheel for a garden tiller. 3,504,748, 4-7-70, Cl. 172-42.

Croitoru, Petrica, to Institutul de Fizica Atomica. High intensity linear accelerators. 3,551,728, 12-29-70, Cl. 315-3.5

Croix, Louise S., to Air Reduction Company, Incorporated. Halomethyl flouroisopropyl ethers. 3,527,814, 9-8-70, Cl. 260-614.

Croley, Thomas E.; and Morgan, Richard O., to Corrugated Container Company, The. Fiberboard box having strengthened bottom structure and connector corner joint. 3,523,635, 8-11-70, Cl. 229-37.

Croll, Donald C.: *See—*
Crawford, John K.; Croll, Donald C.; Hulsizer, John C.; Kendall, Frank T.; and Schaeffer, George B., Jr.,3,540,033.

Crombie, Terence G. Perforated steel belt conveyor. 3,506,129, 4-14-70, Cl. 210-401.

Cromeens, Jeff Y.; and Clyce, Thomas E., to Industrial Woodworking Machine Co., Inc. Remote control system. 3,538,813, 11-10-70, Cl. 91-1.

Cromer, Charles F.; and Circle, Robert R., to Westinghouse Electric Corporation. Current responsive apparatus for a high voltage conductor wherein displacements responsive to current variations are transformed into forces which are transmitted to a remote point and force transducer apparatus. 3,504,281, 3-31-70, Cl. 324-127.

Cromer, Charles F.: *See—*
Strom, Albert P.; and Cromer, Charles F.,3,497,653.

Cromford Colour Company Limited: *See—*
Clay, Herbert Frank, 3,493,411.

Cromie, Harry W. Fabric covered heart valve having an improved fabric seat. 3,508,281, 4-28-70, Cl. 3-1.

Cromie, Harry W. Prosthetic heart valve. 3,524,202, 8-18-70, Cl. 3-1.

Cromleigh, Robert L. Tool for placing siding on a building. 3,518,770, 7-7-70, Cl. 33-187.

Crommelin, Philip B., Jr.; and Johnson, Bob R., to Research-Cottrell, Inc. System integrating bag filter shake manifold with casing structural system. 3,525,199, 8-25-70, Cl. 55-302.

Crompton & Knowles Corporation: *See—*
Campman, Arthur R.; and Barbod, Hooshang, 3,491,956.
Darwin, Clifford; and Nelson, Howard I., 3,516,449.
DesRosiers, Wilfred Francis, 3,550,642.
Gurney, Gordon Taylor; and Hall, Kenneth Jeurit, 3,499,472.
Horning, Roderick H., 3,511,827.
Kingdon, Charles Russell, 3,513,883.
Kronoff, Clarence R.; and Dolbeare, Edwin F., 3,508,588.
Nugarus, Anthony R., 3,496,910.
Rust, Edgar C., Jr., 3,537,547.

Crompton, Fred A.: *See—*
McCarthy, Stanley; and Crompton, Fred A.,3,507,417.

Cromwell Paper Company, The: *See—*
LeBolt, John M.; and Rupp, Richard O., 3,493,455.

Cromwell, Willard M.; and Perzdirtz, Frank R. Cuff stretcher. 3,547,318, 12-15-70, Cl. 223-2.

Cron, Martin John; Ragan, Elizabeth Almira; and Hooper, Irving R., to Bristol-Myers Company. Cinnamoyl derivatives of 3-amino-4-hydroxy-8- methyl-7-[3-0-(5-methyl-2-pyrrolylcarbonyl) noviosyloxy] coumarin. 3,547,903, 12-15-70, Cl. 260-210.

Cronauer, Donald C.: *See—*
Baumgard, Larry G.; and Cronauer, Donald C.,3,542,885.

Crone, Alfred F., to Acme Highway Products Corporation. Method of forming grooves in pavements between concrete slabs. 3,491,659, 1-27-70, Cl. 94-22.

Crone, Alfred F., to Acme Highway Products Corporation. Load transfer joint supports for pavements. 3,516,338, 6-23-70, Cl. 94-8.

Crone, Alfred F., to Acme Highway Products Corporation. Positioning highway joint supports and shear plates in paving material. 3,529,518, 9-22-70, Cl. 94-39.

Crone Emil Von Der: *See—*
Schlossmacher, Wilhelm, 3,543,964.

Croneberger, Louis T.: *See—*
Sellers, Paul H.; and Croneberger, Louis T.,3,540,284.

Cronig, Alvin: *See—*
Armstrong, Clarence J.; and Cronig, Alvin,3,531,284.

Cronin, David J.: *See—*
Reynolds, George O.; and Cronin, David J.,3,545,842.

Cronin, David V., to Dynamics Research Corporation. Electro-optical transducers having fluidic support. 3,531,650, 9-29-70, Cl. 250-219.

Cronin, Jhn C.; and Narbut, Paul, to Westinghouse Electric Corporation. Corona testing apparatus including an oscilloscope and mechanical to electrical transducers having signal isolating means therebetween. 3,505,597, 4-7-70, Cl. 324-72.

Cronin, John: *See—*
Rodriguez, Antonio R.; and Cronin, John,3,546,776.

Cronin, Timothy H.; and Hess, Hans-Jurgen E., to Pfizer, Chas., & Co., Inc. Certain 2- and 4-substituted quinazolines. 3,517,005, 6-23-70, Cl. 260-256.4

Cronin, Timothy H.; and Hess, Hans-Jurgen E., to Pfizer, Chas., & Co., Inc. 2-Amino-6,7-disubstituted-4H-1,3- benzothiazine-4-ones as bronchodilators. 3,522,247, 7-28-70, Cl. 260-243.

Cronk, William S., to United States of America, Air Force. Cavity flare. 3,494,283, 2-10-70, Cl. 102-37.8

Cronk, William S.; and Semmes, Ignatius W., to United States of America, Air Force. Electro-chemical synergistic continuous infrared source. 3,514,605, 5-26-70, Cl. 250-85.

Cronstroms Manufacturing, Inc.: *See—*
Bloom, Lester W.; and Olson, Thomas P., 3,527,011.

Crook, George L.; and Read, Alfred H., to British Oxygen Company Limited, The. Oxy-fuel flame burner nozzles. 3,510,064, 5-5-70, Cl. 239-424.

Crook, Hubert D., to Ethyl Corporation. Swimming pool cover. 3,534,412, 10-20-70, Cl. 4-172.12

Crook, Norman L. Pitch stabilization system for dual unit aircraft. 3,516,624, 6-23-70, Cl. 244-2.

Crook, Rapp Wallace, III, to Du Pont de Nemours, E. I., and Company. Apparatus for changing fibrous material. 3,535,588, 10-20-70, Cl. 317-4.

Crook, Walter B., Jr.: *See—*
Koll, Laurel A.; and Crook, Walter B., Jr.,3,493,979.

Crooks, Fuller A.; and Stasiek, Jan S., to Torque Controls, Inc., mesne. Torque wrench. 3,525,256, 8-25-70, Cl. 73-139.

Crooks, Horatio N., to RCA Corporation. Holograms for reconstruction of objects of equal intensity. 3,519,324, 7-7-70, Cl. 350-3.5

Crooks, James W., to Allis-Chalmers Manufacturing Company. Power shift transmission. 3,548,665, 12-22-70, Cl. 74-15.63

Crooks, James W., to Allis-Chalmers Manufacturing Company. Multiple speed transmission. 3,548,666, 12-22-70, Cl. 74-15.63

Crooks, James W., to Allis-Chalmers Manufacturing Company. Planetary transmission. 3,548,680, 12-22-70, Cl. 74-682.

Crooks, James W., to Allis-Chalmers Manufacturing Company. Multiple speed power shift transmission. 3,548,681, 12-22-70, Cl. 74-682.

Crooks, James W.: *See—*
Zajichek, William J.; and Crooks, James W.,3,513,712.

Crooks, Randol C.: *See—*
Johnson, Eldon D.; and Crooks, Randol C.,3,511,691.

Crookshanks, Rex J.; and Reese, Glenn A., to Magnavox Company, The. System for facsimile transmission over telephone lines. 3,496,298, 2-17-70, Cl. 179-4.

Croon, Ingemar Liss-Albin; and Blomqvist, Nils Verner, to Mo Och Domsjo Aktiebolag. Tampan for dental and cataminial use. 3,523,535, 8-11-70, Cl. 128-285.

Croon, Ingemar Liss-Albin; and Samuelsson, Lars-Gunnar, to Mo Och Domsjo Aktiebolag. Method of inhibiting the formation of fiber-knots in paper pulp and product. 3,499,823, 3-10-70, Cl. 162-158.

Croon, Ingemar Liss-Albin: *See—*
Blomqvist, Nils Verner; Croon, Ingemar Liss-Albin; and Sundell, Gustav Harry,3,547,930.

Croon, Ingemar; and Blomqvist, Nils Verner, to Mo och Domsjo Aktiebolag. Disposable diaper and process and apparatus for making the same. 3,527,221, 9-8-70, Cl. 128-287.

Croop, Howard W.: *See—*
Budzak, Paul A.; and Croop, Howard W.,3,542,092.

Croot, Abraham William: *See—*
Fowler, Reginald John; and Croot, Abraham William,3,510,943.

Cropper, Walter V.; and Carlstedt, Paul R., to Precision Scientific Company. Flash point testing device including cooling means for the flash chamber. 3,521,480, 7-21-70, Cl. 73-36.

Cropper, Wendell P., to Standard Oil Company. Thermocouple control apparatus including a servo controlled calibrating mode and a measurement mode mode detecting low level signals. 3,523,233, 8-4-70, Cl. 318-619.

Cropper, Wendell P.; and Kapff, Sixt Frederick, to Standard Oil Company (Indiana). Sulfur detecting method and apparatus. 3,547,590, 12-15-70, Cl. 23-253.

Crosbie, A., & Sons Limited: *See—*
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Crosbie, Alfred C., to Crosbie, A., & Sons Limited. Vent check valve. 3,502,047, 3-24-70, Cl. 114-212.

Crosby, Charles D. Archery bow sight. 3,526,037, 9-1-70, Cl. 33-46.

Crosby, David Winston, to ICI Fibres Limited. Reversible non-woven needled fabrics and methods of making them. 3,506,530, 4-14-70, Cl. 161-67.

Crosby, Donald P.: *See—*
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Crosby, George A.: *See—*
Orban, Richard; and Crosby, George A.,3,493,014.

Crosby, James R.; Kreder, Kermit R.; and Miller, Edgar R., to North American Rockwell Corporation. Method of coating thermally emissive surface with a composite radiation control coating and resulting article. 3,496,011, 2-17-70, Cl. 117-69.

Crosby, Lawton H.; and Feingold, Eugene B. Spring construction. 3,525,514, 8-25-70, Cl. 267-110.

Crosby, Melvin A., to Kennametal Inc. Clamping arrangement. 3,525,136, 8-25-70, Cl. 29-96.

Crosby Research, Inc.: *See—*
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Mabbett, John C., 3,530,309.

Crosby, William E.; and Kearney, Edward K., said Kearney assor. to said Crosby. Key holder. 3,524,336, 8-18-70, Cl. 70-457.

Croset, Louis Paul. Universal joints. 3,488,979, 1-13-70, Cl. 64-21.

Croset, Michel, to CSF-Compagnie Generale de Telegraphie Sans Fil. Process for the oxidation of gallium- arsenide. 3,531,377, 9-29-70, Cl. 204-14.

Croset, Michel, to CSF-Compagnie Generale de Telegraphie Sans Fil. Process for oxidizing tellurium. 3,531,378, 9-29-70, Cl. 204-14.

Crosfield Electronics Limited: *See—*
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Gold, Daniel; and Bent, Dennis Herbert, 3,497,121.
Morris, Kenneth B., 3,489,082.
Wilby, William Peter L., 3,541,245.

Crosland, Howard C., to Chemical Rubber Products, Inc. Diaphragm assembly. 3,523,857, 8-11-70, Cl. 161-40.

Crosland, Richard Graham: *See—*
Williamson, David Theodore Nelson; Crosland, Richard Graham; and Christal, Philip Richard,3,517,430.
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Vadas, John F.; and Desrochers, Donald A., 3,527,194.
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Vadas, John F.; and Liepins, Sigurds, 3,547,095.

Crosman, Dorland L., to American Character, Inc. Changeable feature doll. 3,494,068, 2-10-70, Cl. 46-135.

Cross, Alexander D., to Syntex Corporation. 1-(Cyclohex-2'-en-4'-one) 2'phenyl-1,2,3,4 tetra- hydronapthalene derivatives. 3,520,894, 7-21-70, Cl. 260-294.7

Cross, Alexander D.; and Edwards, John A., to Syntex Corporation. 5',6'-Dihydro-2H-pyran-4'-yl ethers of corticoid steroids. 3,513,162, 5-19-70, Cl. 260-239.55

Cross, Alexander D.; and Edwards, John A., to Syntex Corporation. 5',6'-Dihydro-2H-pyran-4'-yl ethers of progestational steroids. 3,513,164, 5-19-70, Cl. 260-239.55

Cross, Alexander D.; and Edwards, John A., to Syntex Corporation. Lower alkoxytetrahydropyranyl ethers of progestational steroids. 3,514,446, 5-26-70, Cl. 260-239.55

Cross, Alexander D.; and Edwards, John A., to Syntex Corporation. Lower alkoxytetrahydropyranyl ethers of anabolic steroids. 3,520,880, 7-21-70, Cl. 260-239.55

Cross, Alexander D.; and Edwards, John A., to Syntex Corporation. Lower alkoxytetrahydropyranyl ethers of estrogenic steroids. 3,520,881, 7-21-70, Cl. 260-239.55

Cross, Alexander D.; and Edwards, John A., to Syntex Corporation. 5',6'-Dihydro-2H-pyran-4'-yl ethers of estrogenic steroids. 3,520,882, 7-21-70, Cl. 260-239.55

Cross, Alexander D.; and Edwards, John A., to Syntex Corporation. Lower alkoxytetrahydropyranyl ethers of corticoid steroids. 3,525,739, 8-25-70, Cl. 260-239.55

Cross, Alexander D.; and Edwards, John A., to Syntex Corporation. 5',6'-Dihydro-2H-pyran-4'-yl ethers of anabolic steroids. 3,525,740, 8-25-70, Cl. 260-239.55

Cross, Alexander D.; Fried, John H.; and Harrison, Ian T., to Syntex Corporation. Process for the preparation of benzoic acid lactones and novel intermediates therefor. 3,535,343, 10-20-70, Cl. 260-343.2

Cross, Alexander D.: *See—*
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Cross, Bert S., to Minnesota Mining and Manufacturing Company. Hat for holding articles. 3,546,709, 12-15-70, Cl. 2-179.

Cross, Charles A., to United States of America, Navy. Agitator for mixing high viscosity materials. 3,520,519, 7-14-70, Cl. 259-122.

Cross, Charles Brandon: *See—*
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Cross Company, The: *See—*
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Cross, Donald J.; and Waybright, George C., to Sylvania Electric Products, Inc. Demountable system for flying spot scanner. 3,527,884, 9-8-70, Cl. 178-7.81

Cross, Donald John, to Sylvania Electric Products, Inc. Multiple circuit control switch with guide stops for limiting the vertical travel of a springlike movable contact. 3,529,109, 9-15-70, Cl. 200-153.

Cross, Donald John; and Neal, Charles Bailey, to Sylvania Electric Products, Inc. Electro-optical color reproduction system and mounting means therefor. 3,539,710, 11-10-70, Cl. 178-5.2

Cross, Douglas A.; and Bird, Garnet W., to Cross, Iris May, and Cross, Charles Brandon. Automatically ignited oil burning heating devices. 3,498,729, 3-3-70, Cl. 431-18.

Cross, Edward A.; and Frye, Richard L., to Texaco Inc. Grease thickened with fibers coated with a soap. 3,520,807, 7-21-70, Cl. 252-13.

Cross, Frank T.; and Harvey, William B. Fish feeder. 3,512,505, 5-19-70, Cl. 119-51.

Cross, Iris May: *See—*
Cross, Douglas A.; and Bird, Garnet W., 3,498,729.

Cross, James M.; and Chadwick, David H., to Mobay Chemical Company. Removal of O-diamines from an isomeric mixture of tolylene diamines. 3,522,310, 7-28-70, Cl. 260-582.

Cross, James M.; and Metzger, Sidney H., to Mobay Chemical Company. Alkylene oxide adducts of methylcyclohexylene diamine. 3,535,378, 10-20-70, Cl. 260-563.

Cross, John H.: *See—*
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Cross, Walter George, to Rolls-Royce Limited. Gas turbine engine. 3,528,248, 9-15-70, Cl. 60-235.

Cross, Walter George; and Edwards, Wesley Boyd, to Rolls-Royce Limited. Gas turbine engine fuel system. 3,530,666, 9-29-70, Cl. 60-39.16

Cross, Walter George; and Ivens, William Ralph Coleman, to Rolls-Royce Limited. Gas turbine engine. 3,505,818, 4-14-70, Cl. 60-242.

Cross, Walter George: *See—*
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Crossland, Stanley G., to Thomas, Ray I. Reduction of iron content in bleaching fibrous cellulose. 3,539,445, 11-10-70, Cl. 162-76.

Crosslen, Louis John; and Vicenzi, Elio, to Mayer, Frank, & Associates, Inc. Theftproof merchandise display. 3,517,827, 6-30-70, Cl. 211-163.

Crossley, Jack, to Manesty Machines Limited. Rotary tablet-making machines. 3,518,950, 7-7-70, Cl. 107-17.

Crossman, Geraldine A. Bandages. 3,547,120, 12-15-70, Cl. 128-157.

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Crosstalk, Inc.: *See—*
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Crost, Munsey E.; Shoulders, Kenneth; and Zinn, Mortimer H., to United States of America, Army, mesne. Thin electron tube with electron emitters at intersections of crossed conductors. 3,500,102, 3-10-70, Cl. 313-109.

Crosthwait, Marion J. Alarm system. 3,540,043, 11-10-70, Cl. 340-420.

Crothers, William J., Jr.: *See—*
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Canonica, Luigi; Crotti, Argento; and Pieri, Giampiero,3,502,646.

Crotty, Homer E.; and Brungs, Charles A., to Grace, W. R., & Co. Chlorine stable machine dishwashing composition. 3,491,028, 1-20-70, Cl. 252-103.

Crouch, Alferd H. One-arm shotgun and flashlight structure. 3,488,488, 1-6-70, Cl. 240-6.41

Crouch, Alfred E.: *See—*
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Walters, William T.; Wood, Fenton M.; and Crouch, Alfred E.,3,539,915.
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Crouch, Donald W., to General Electric Company. Vacuum-type circuit interrupter with contacts having particularly shaped circumferentially spaced slots. 3,522,399, 7-28-70, Cl. 200-144.

Crouch, Marvin A.; and Taylor, Charlie E., to General Electric Company. Dual O-ring seal for capacitors. 3,502,948, 3-24-70, Cl. 317-230.

Crounse, Nathan N.; Bonta, Simon; and Ploss, Charles J., to Sterling Drug Inc. N,N-dimethyl-N-(CH3C8-C16 alkyl)-N-3-nitro-4-methoxybenzylammonium chlorides. 3,532,750, 10-6-70, Cl. 260-567.6

Crouse, David J., Jr.: *See—*
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Crouse, William G., to International Business Machines Corporation. Active variable impedance device for large signal applications. 3,539,826, 11-10-70, Cl. 307-229.

Crouse, William G., to International Business Machines Corporation. Frequency discriminator-detector for data transmission system of the frequency shift keying type. 3,539,828, 11-10-70, Cl. 307-233.

Crouse, William G.; and Duspiva, Walter S., to International Business Machines Corporation. Absolute value function generator. 3,509,369, 4-28-70, Cl. 307-330.

Crouser, Darwin S.: *See—*
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Crow, Marvin E. Adapter accessory for overhead projectors. 3,510,214, 5-5-70, Cl. 353-21.

Crow, Morgan L.; and Adams, Frederick Lee, to Dresser Industries, Inc. Tubing blowout preventer. 3,508,759, 4-28-70, Cl. 277-75.

Crow, Ralph R. Portable saw. 3,530,908, 9-29-70, Cl. 143-19.

Crow, Stewart E.: *See—*
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Crow, Thomas G., to United States of America, Army. Low temperature optical isolator for laser system. 3,523,718, 8-11-70, Cl. 350-151.

Crowcroft, Peter Lester: *See—*
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Crowder, Wyly Kenneth. Aquatic vehicles. 3,528,381, 9-15-70, Cl. 114-67.

Crowe, Curtis Wendell, to Dow Chemical Company, The. Method of improving permeability of geologic formations by removal of organic material therefrom. 3,528,503, 9-15-70, Cl. 166-300.

Crowe, Curtis Wendell, to Dow Chemical Company, The. Method of improving permeability of geologic formations by removal of organic material therefrom. 3,529,666, 9-22-70, Cl. 166-300.

Crowe, Dale A., to Rothenbuhler Engineering Co. Frequency selective circuit. 3,539,827, 11-10-70, Cl. 307-233.

Crowe, Harold W.: *See—*
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Crowe, James W.: *See—*
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Crowe, Robert W., to Dentin Manufacturing Company. Method and apparatus for uniting plastic bodies. 3,539,421, 11-10-70, Cl. 156-583.

Crowe, Thomas J. Web spreader. 3,547,330, 12-15-70, Cl. 226-88.

Crowe, William P., to General Electric Company. Water cooler. 3,511,415, 5-12-70, Cl. 222-146.

Crowell, Charles J., Jr., to United States of America, Navy. Heat producing composition and method of employment. 3,535,246, 10-20-70, Cl. 252-70.

Crowell, John A.: *See—*
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Crowell, Merton H., to Bell Telephone Laboratories, Incorporated. Pulse code modulated optical maser. 3,551,840, 12-29-70, Cl. 331-94.5

Crowell, Philip L.: *See—*
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Crowell, Richard S., to United States Steel Corporation. Continuous-casting mold with refractory top liner. 3,533,462, 10-13-70, Cl. 164-273.

Crowell, William H., to Honeywell Inc. Time division multiplier. 3,492,471, 1-27-70, Cl. 235-194.

Crowell, William H., to Honeywell Inc. Equivalent base load hours computer. 3,517,177, 6-23-70, Cl. 235-183.

Crowell, William H.; and Hunt, Brian I., to Honeywell Inc. Apparatus for determining the uniformity of web material. 3,534,402, 10-13-70, Cl. 235-151.1

Crowley, Don E.; and Tabler, Donald C., to Phillips Petroleum Company. Cyclic diene adsorption with activated zinc oxide- silica-alumina adsorbents. 3,506,732, 4-14-70, Cl. 260-681.5

Crowley, John E., Jr., to Southern Suction and Equipment Company. Carding machine cleaner plenum. 3,520,028, 7-14-70, Cl. 19-107.

Crowley, Josephus C., Jr.; Foster, Harry C.; and Saint Clair, Maurice. Flow regulating irrigating device. 3,512,525, 5-19-70, Cl. 128-229.

Crowley, Leo E., to Amicon Corporation. Flocculant consisting of the condensation product of a polyhalogenated organophosphate and a polyamine. 3,542,688, 11-24-70, Cl. 252-180.

Crowley, Richard P. Embossed plastic surface coverings and method of preparing same. 3,519,527, 7-7-70, Cl. 161-120.

Crowley, Richard P.; Takata, Victor T.; and Pessa, Edmund L., to Abcor Inc. Gas fractionating apparatus. 3,507,097, 4-21-70, Cl. 55-162.

Crowley, Thomas Joseph, to Dunlop Company Limited, The. Method of bonding polymeric materials having peptide(-CONH-) linkages. 3,514,360, 5-26-70, Cl. 156-308.

Crowley, Walter A., to Boeing Company, The. Air bearing devices. 3,513,934, 5-26-70, Cl. 180-124.

Crowley, Walter A.; and Wood, Kenneth G., to Aero-Go, Inc. Fluid bearing device with self-regulating action. 3,513,936, 5-26-70, Cl. 180-124.

Crowley, William G., to Wells, Inc. Ear ornament clasp with spring actuated jaw. 3,509,733, 5-5-70, Cl. 63-14.

Crown Controls Corporation: *See—*
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Crowther, Alan Lewis; Duncanson, Leonard Andrew; and Jones, Walter Edward, to Imperial Chemical Industries Limited. Production of oxygen-containing organic compounds. 3,539,592, 11-10-70, Cl. 260-343.

Crowther, Albert Frederick; and Smith, Leslie Harold, to Imperial Chemical Industries Limited. Homocyclic compounds. 3,520,919, 7-21-70, Cl. 260-477.

Crowther, Albert Frederick; Smith, Leslie Harold; and Wood, Thomas Miller, to Imperial Chemical Industries Limited. 1-Arylox-y-3secondary-alkyl and aralkyl-2- propanols and the salts thereof. 3,501,769, 3-17-70, Cl. 260-501.17

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Crowther, Thomas S., to Massachusetts Institute of Technology. Methods of improving magnetic characteristics of films for memory application. 3,515,606, 6-2-70, Cl. 156-3.

Croy, John E., to RCA Corporation. Weighted time accounting in time shared computer. 3,518,633, 6-30-70, Cl. 340-172.5

Croymans, Jacques Johannes Hendrik; and Van Hout, Henricus Marinus, to U.S. Philips Corporation. Stepping motor for a large number of steps per revolution. 3,549,918, 12-22-70, Cl. 310-49.

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Crudden, Joseph, to Forney Engineering Company. Damper floating side rail bar. 3,525,328, 8-25-70, Cl. 126-285.

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Cruickshank, David Graham; Epperson, James Philbert; Murray, William Alexander, Sr.; and Wydro, Richard Allen, Sr., to Western Electric Company, Incorporated. Simultaneous multiple lead bonding. 3,534,462, 10-20-70, Cl. 29-471.1

Crull, Marvin L.: *See—*
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Crumbaker, James O.; and Liebschwager, Leland F., said Liebschwager assor. to said Crumbaker. Portable vertically telescoping cab-over camper cabin. 3,533,656, 10-13-70, Cl. 296-23.

Crumbo, Woodrow W. Reciprocating drilling tool. 3,517,759, 6-30-70, Cl. 175-298.

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Crumley, James B. Can opener cleaner-sharpener accessory. 3,540,166, 11-17-70, Cl. 51-247.

Crump, John P. Random printing of yarns or threads. 3,491,561, 1-27-70, Cl. 68-202.

Crump, Ralph E.; and Reynolds, Frank L., to Frigitronics, Inc. Method and apparatus for cryosurgery. 3,512,531, 5-19-70, Cl. 128-303.1

Crump, Ralph E.; Reynolds, Frank L.; and Thyberg, Victor A., to Frigitronics, Inc. Disposable cyrosurgical instrument. 3,524,446, 8-18-70, Cl. 128-303.1

Crump, William B. Golf ball picker for driving range. 3,520,727, 7-14-70, Cl. 134-115.

Crump, Woodford J., to Monogram Industries, Inc. Two position safety valve for air driven motors. 3,510,099, 5-5-70, Cl. 251-116.

Crumpen, Mervyn James, to Marconi Company Limited, The. Variable directivity aerial of the slotted waveguide type. 3,501,766, 3-17-70, Cl. 343-771.

Cruse, Oliver B., to Wagner Electric Corporation. Control valve. 3,519,312, 7-7-70, Cl. 303-13.

Cruse, Oliver B., to Wagner Electric Corporation. Control valve. 3,533,661, 10-13-70, Cl. 303-68.

Cruse, Oliver B., to Wagner Electric Corporation. Control valve. 3,549,208, 12-22-70, Cl. 303-13.

Cruse, Philip M., to Santa Barbara Research Center. Passive intrusion detecting system. 3,524,180, 8-11-70, Cl. 340-258.

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Crushproof Tubing Company: *See—*
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Crutchfield, Marvin M., to Monsanto Company. Dialkali metal salts of amino tri (alkylidenephosphonic acids). 3,536,752, 10-27-70, Cl. 260-502.5

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Cruz, Modesto Beltran, to Industrias Gabe, S.A. Flexible couplings for mechanical transmissions. 3,525,238, 8-25-70, Cl. 64-11.

Cryder, John R; Haak, Willard J.; Hufeld, John L.; Kinney, Lionel L.; Lohbauer, Kenneth R.; Marsden, Howard A.; Matthews, Ralph W.; Norick, William B.; Stewart, Glen E.; Vanzandt, Rollin P.; and Winters, Frank H., to Caterpillar Tractor Company. Hydrostatic transmission control system. 3,526,288, 9-1-70, Cl. 180-6.48

Cryder, John R.; Haak, Willard J.; Hufeld, John L.; Kinney, Lionel L.; Lohbauer, Kenneth R.; Marsden, Howard A.; Matthews, Ralph W.; Norick, William B.; Stewart, Glen E.; Vanzandt, Rollin P.; and Winters, Frank H., to Caterpillar Tractor Company. Relief and replenish package for a hydrostatic transmission. 3,528,243, 9-15-70, Cl. 60-52.

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Cryder, John R.; and Stone, Kirby L., to Caterpillar Tractor Company. Relief valve. 3,529,624, 9-22-70, Cl. 137-514.5

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CSF-Compagnie Generale de Telegraphie Sans Fil: *See—*
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Boubouleix, Albert; and Cheze, Rene, 3,518,550.
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Csicsery, Sigmund M.; Hughes, Thomas R.; and Jaffe, Joseph, to Chevron Research Company. Hydrotreating catalyst and process. 3,535,228, 10-20-70, Cl. 208-59.

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Cubberly, Walter E., Jr., to Schlumberger Technology Corporation. Rigid fluid-excluding housing for acoustic well- logging tools. 3,543,231, 11-24-70, Cl. 340-17.

Cubberly, Walter E., Jr., to Schlumberger Technology Corporation. Methods and apparatus for facilitating the descent of well tools through deviated well bores. 3,550,684, 12-29-70, Cl. 166-250.

Cubbon, Robert C. P., to British Nylon Spinners Limited. Polyamides containing monofunctional phosphonium compound. 3,496,147, 2-17-70, Cl. 260-78.

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Cuccio, Allen B. J., to General Electric Company. Means for extracting synchronizing signals from television video signals. 3,500,336, 3-10-70, Cl. 340-172.5

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Cumming, James C., to Rockwell-Standard Company, mesne. Plural brake actuators and circuit means therefor. 3,542,163, 11-24-70, Cl. 188-152.

Cumming, James C., to Rockwell-Standard Company, mesne. Steering mechanism. 3,542,392, 11-24-70, Cl. 280-96.1

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Cummings, Howard B.; and Gibson, Ralph, to Interpace Corporation, mesne. Process for the manufacture of ceramic articles, and product derived from such process. 3,533,812, 10-13-70, Cl. 106-39.

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Cummins, Richard Williamson, to FMC Corporation. Six and eight membered cyclic phosphonic acid esters resulting from the reaction of an olefin, phosphorus, and oxygen. 3,490,940, 1-20-70, Cl. 117-136.

Cummins, Richard W., to FMC Corporation. Oxidation of olefinic compounds to glycols. 3,488,394, 1-6-70, Cl. 260-617.

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Cunningham, Cecil R., to Owens-Corning Fiberglas Corporation. Method and apparatus for controlling delivery of filamentary material to rotatable collectors. 3,538,699, 11-10-70, Cl. 57-90.

Cunningham, Cecil R.; and Rushton, James C., to Owens-Corning Fiberglas Corporation. Winding mandrel for packaging glass strands. 3,544,016, 12-1-70, Cl. 242-18.

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Cunningham, Ernest R., to Illinois Tool Works Inc. Rotary cutter with hold down means. 3,508,458, 4-28-70, Cl. 83-9.

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Cunningham, James A.; and Hanna, Elias G., to Texas Instruments, Incorporated. Air-isolated integrated circuits. 3,533,160, 10-13-70, Cl. 29-578.

Cunningham, James A.; and Wood, Samuel J., Jr., to Texas Instruments, Incorporated. Method of forming heterogeneous composite insulating layer of silicon dioxide in multilevel integrating circuits. 3,507,766, 4-21-70, Cl. 204-192.

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Cunningham, James J., to Esso Research and Engineering Company. Diverter valve for pneumatic conveyance system. 3,536,098, 10-27-70, Cl. 137-610.

Cunningham, John W., to Air Reduction Company, Incorporated. Control of drop size in spray welding. 3,497,669, 2-24-70, Cl. 219-137.

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Cunningham, Lawrence W. Method for cleaning process equipment. 3,549,420, 12-22-70, Cl. 134-22.

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Cunningham, Paul G., Jr. Projectile throwing device. 3,550,938, 12-29-70, Cl. 273-26.

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Cunningham, Thomas W., to Baldwin, D. H., Company. Chiff and tone generator. 3,495,021, 2-10-70, Cl. 84-1.19

Cunningham, Thomas W., to Baldwin, D. H., Company. Digital combination action. 3,498,168, 3-3-70, Cl. 84-345.

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Cunningham, Walter F., to Superior-Tabbies, Inc. Page edge-reinforcing index tabs and method of applying same. 3,535,804, 10-27-70, Cl. 40-2.

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Curchod, Jean; Cheritat, Roland; Widmer, Franz Rudolf; Widmer, Gustav; Renner, Alfred; and Batzer, Hans, to Ciba Limited. Process for the manufacture of finely divided insoluble and infusible melamine-formaldehyde solids of large inner surface. 3,509,098, 4-28-70, Cl. 260-67.6

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Cureton, William L. Centroidally supported modular tetrahedron structure. 3,494,578, 2-10-70, Cl. 244-153.

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Curley, Delbert V. Combined material mixer and distributor. 3,515,374, 6-2-70, Cl. 259-46.

Curley, Paul T., to Cincinnati Milling Machine Co., The. Programmed apparatus for automatically testing interwired connections in electronic systems. 3,500,457, 3-10-70, Cl. 324-73.

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Curry, Walter John. Method for making lap joints. 3,505,725, 4-14-70, Cl. 29-451.

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Cusic, John W.; and Coyne, William E., to Searle, G. D., & Co. Aryl and aralkyl 3,4-dihydro-2-(1H)-quinazolinones. 3,509,149, 4-28-70, Cl. 260-251.
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Cutaia, Alfred, to International Business Machines Corporation. Serial-by-digit recirculating accumulating register. 3,509,331, 4-28-70, Cl. 235f176.
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Cvacho, Daniel S.; and Robertson, Field I., Jr., to Reynolds Metals Company. Container printing apparatus and method. 3,496,863, 2-24-70, Cl. 101-40.
Cvacho, Daniel S.; and Robertson, Field I., Jr., to Reynolds Metals Company. Apparatus for and method of rapidly drying coating means on a workpiece. 3,537,187, 11-3-70, Cl. 34-21.
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Cya, Henryk A.; and Louvar, James J., to Universal Oil Products Company. Production of olefinic hydrocarbons. 3,531,387, 9-29-70, Cl. 204-72.
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Cyba, Henryk A., to Universal Oil Products Company. Amine salts of phosphinic acid or carboxylic acid esters thereof as antioxidants for organic materials. 3,542,679, 11-24-70, Cl. 252-32.5
Cyba, Henryk A., to Universal Oil Products Company. Substituted imides of polyhalopolyhydro- polycyclicdicarboxylic acids. 3,542,805, 11-24-70, Cl. 260-326.
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Cymbalisty, Lubomyr M. O., 30% to Cities Service Athabasca, Inc., 30% to Imperial Oil Limited, 30% to Atlantic Richfield Company, and 10% to Royalite Oil Company, Limited. Controlled phase separation vessel. 3,490,589, 1-20-70, Cl. 209-163.

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Czernik, Daniel E., to Dana Corporation, mesne. No retorque cylinder head gasket. 3,532,349, 10-6-70, Cl. 277-206.

Czernik, Daniel E.; and Kapps, Marion H., to Victor Manufacturing & Gasket Company. Elastomeric grommet for gaskets. 3,499,655, 3-10-70, Cl. 277-235.

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Czipisch, Kurt; and Treber, Willi O. Section bar. 3,545,157, 12-8-70, Cl. 52-117.

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Damico, Armand S. Alerting signal system for indicating the operating condition of motor vehicles. 3,497,871, 2-24-70, Cl. 340-71.

Damico, Frank M., to Bendix Corporation, The. Fluid operated bellows clutch. 3,540,560, 11-17-70, Cl. 192-88.

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D'Amico, John Joseph, to Monsanto Company. Benzyl propynylthiolcarbamates. 3,499,022, 3-3-70, Cl. 260-455.

D'Amico, John Joseph, to Monsanto Company. 3,4-Dihydro-1-(2-hydroxyalkylamino)-4,4-trialkyl- 2-(1H)-pyrimidinethiones. 3,510,490, 5-5-70, Cl. 260-256.5

D'Amico, John Joseph, to Monsanto Company. Polymethylene thiuram sulfides in vulcanizable compositions. 3,532,678, 10-6-70, Cl. 260-79.5

D'Amico, John Joseph, to Monsanto Company. Benzazolylthio alkyl isothiocyanates. 3,547,938, 12-15-70, Cl. 260-306.6

D'Amico, John Joseph, to Monsanto Company. Process for preparing N-branched-chain alkyl and cycloalkyl 2-benzothiazole sulfenamides. 3,549,650, 12-22-70, Cl. 260-306.6

D'Amico, John Joseph; and Campbell, Robert H., to Monsanto Company. Making tetrathiaspiro compounds. 3,525,752, 8-25-70, Cl. 260-327.

D'Amico, John Joseph; Rudy, John F.; Shuford, David M.; and Wischhusen, Theodore F., to Martin-Marietta Corporation. Method of and apparatus for bonding. 3,551,240, 12-29-70, Cl. 156-228.

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Damm, Carl A.; Eichmann, Albert C.; and Halpern, William J., to United States of America, Navy. Contact member. 3,538,488, 11-3-70, Cl. 339-95.

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Daniels, Richard W., to Bell Telephone Laboratories, Incorporated. Nonreciprocal transistor network. 3,497,836, 2-24-70, Cl. 333-80.
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Danielsson, Erik Ruben. Arrangement in mine hoist installations. 3,532,240, 10-6-70, Cl. 214-740.
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Darcas, Claude; and Tcherkawsky, Claude, to Ugine Kuhlmann. Ion exchange recovery of oxazole from acrylo- nitrile compositions. 3,541,131, 11-17-70, Cl. 260-465.3
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Dardick, David, to TRW Inc. Open chamber breech mechanism with explosion actuated cylinder. 3,501,998, 3-24-70, Cl. 89-156.
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Darr, Donald E.; Leiser, Roger S.; Loehr, Clifford E.; and Richardson, Kenneth W., to PPG Industries, Inc. Apparatus for removing metal oxide scale from a reactor wall. 3,550,177, 12-29-70, Cl. 15-104.1
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D'Ascoli, Ralph G.; and Alleva, Leon L., to Anaconda Wire and Cable Company. Compositions for filling electrical connectors of mineral oil, polyethylene, petroleum resin and dioctyl sebacate. 3,536,626, 10-27-70, Cl. 252-64.

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Daskalakis, Andrew; Frenkiel, Richard H.; Nyland, Harry W.; Paul, Charles E.; and Porter, Philip T., to Bell Telephone Laboratories, Incorporated. Zoned mobile radio telephone system. 3,539,924, 11-10-70, Cl. 325-51.

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Dassonville, Jacques. Photographic contact printing apparatus. 3,488,121, 1-6-70, Cl. 355-90.

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Date, Kazuo Henry, to McGraw-Edison Company. Repeating circuit interrupter. 3,526,735, 9-1-70, Cl. 200-153.

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Daugherty, David W., Jr., to Cardwell Westinghouse Company. Double acting hydraulic cushioning device. 3,542,212, 11-24-70, Cl. 213-43.

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Daugherty, Thomas L., to United States of America, Navy. Submergence pressure thrust compensator. 3,496,793, 2-24-70, Cl. 74-421.

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Daughtry, Wallace B. Carriers for food plates, cups, sandwiches and the like. 3,517,868, 6-30-70, Cl. 224-45.

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Dauphin, Florence A. Bed-making aid. 3,541,621, 11-24-70, Cl. 5-320.

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D'Avello, Faust S.; and Eves, Donald J., to Goodyear Tire & Rubber Company, The. Method of building plies and tires. 3,506,514, 4-14-70, Cl. 156-132.

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Davey, Donald L., to American Telephone and Telegraph Company. Sender for transmitting trains of pulses. 3,488,450, 1-6-70, Cl. 179-90.

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Davey, Theodore H., to Aro Corporation, The. Electrical heater circuit. 3,548,156, 12-15-70, Cl. 219-499.

Davey, Thomas Ronald Albert, to Commonwealth Scientific and Industrial Research Organization. Tin smelting. 3,508,909, 4-28-70, Cl. 75-85.

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water cooled nuclear reactors installation. 3,488,254, 1-6-70, Cl. 176-37.
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David, Charles W.; and Munson, Eugene A., to Disc Pack Corporation, mesne. Apparatus for coating memory discs with oxide or like film. 3,537,425, 11-3-70, Cl. 118-301.
David, Charles W.; Munson, Eugene A.; and DeGoes, Arlen E., to Disc Pack Corporation. Disc pack assembler and method. 3,495,326, 2-17-70, Cl. 29-604.
David, Charles W.; and Penny, Richard J., to Disc Pack Corporation. Disc pack with card label. 3,500,364, 3-10-70, Cl. 340-174.1
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Davidge, Ronald V.; Greer, Donald L.; McCornack, Richard W.; and O'Daniel, Jerome B., to International Business Machines Corporation. Character selector. 3,516,528, 6-23-70, Cl. 197-16.
Davidge, Ronald V.; and Kolpek, Robert A., to International Business Machines Corporation. Ausio visual teaching machine. 3,540,133, 11-17-70, Cl. 35-9.
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Davidse, Pieter D.; and Maissel, Leon I., to International Business Machines Corporation. RF cathode sputtering method. 3,532,615, 10-6-70, Cl. 204-192.
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Davidson, Frederick H.; Curtis, Albert B., Jr.; and Cayocca, Iver D., to Aerojet-General Corporation. Extensometer. 3,514,864, 6-2-70, Cl. 33-148.
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Davidson, William E., to General Electric Company. Steam iron water valve wick structure. 3,497,976, 3-3-70, Cl. 38-77.83
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Davis, Frederick B., III; and Ross, Charles W., to Leeds & Northrup Company. Load-frequency control system without proportional windup. 3,525,857, 8-25-70, Cl. 235-151.21

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Day, William John, to Perry, E.S., Limited. Sealing of tubes of plastic material. 3,545,168, 12-8-70, Cl. 53-37.
Day-Glo Color Corporation: *See—*
Switzer, Joseph L., 3,547,827.
Daya, Ronald Stephen: *See—*
Tyndall, John Gordon Roper; Lawrence, Julius Kingsley Campbell; and Daya, Ronald Stephen,3,495,725.
Daybrook-Ottawa Corporation: *See—*
Size, Harrie Arthur, 3,498,481.
Dayco Corporation: *See—*
Beindorf, Lucian J., 3,523,462.
Freedlander, Abraham L.; Matthews, Robert E.; and Garrett, Wayne C., 3,516,236.
Fultz, Russell E.; and Wolk, Reuben, 3,516,901.
Nemecek, Paul E.; and Henderson, Dewey D., 3,523,461.

Wagner, William T., 3,513,490.
Daykin, Kenneth W.: *See—*
Hirst, Arthur A.; and Daykin, Kenneth W.,3,521,055.
Daymon, Robert C. Starting roller controls for sod rolling machine. 3,498,386, 3-3-70, Cl. 172-19.
Daymon, Robert C. Inclined conveyor controls for sod rolling machine. 3,499,492, 3-10-70, Cl. 172-19.
Daymond Company Limited, The: *See—*
Daymond, Stewart F., 3,495,856.
Daymond, Stewart F., to Daymond Company Limited, The. Expansion joint. 3,495,856, 2-17-70, Cl. 285-300.
Dayton, David R.; and Gates, Paul E., to Sylvania Electric Products, Inc. Method of sealing quartz to metal. 3,547,508, 12-15-70, Cl. 316-19.
Dayton Electronic Products Company: *See—*
Kimura, Keiichi, 3,508,417.
Kramer, George H., 3,525,933.
Dayton Progress Corporation: *See—*
Gargrave, Robert J., 3,525,183.
Smith, Robert E., 3,543,451.
Dayton Reliable Tool & Mfg. Company: *See—*
Brown, Omar L., 3,545,249.
Eickenhorst, Franklin C., 3,499,312.
Dayton, Robert E., to United Aircraft Corporation. Unit-distance encoder. 3,548,397, 12-15-70, Cl. 340-347.
Dayton Steel Foundry Company, The: *See—*
Afanador, Carlos P.; and Rike, Russell E., 3,490,343.
Dazey Products Company: *See—*
Briar, Jack E.; and Conner, Alvin E., 3,538,787.
Dazor Manufacturing Corporation: *See—*
Mehr, Jacob A., 3,498,577.
Mehr, Jacob A., 3,547,390.
D.C. Transit System, Inc.: *See—*
Sherbert, Thomas Leroy; and Sherbert, Tillison Myron, 3,516,710.
DCA Food Industries Inc.: *See—*
Fowler, Roscoe T.; and Kaufman, Harold B., Jr., 3,539,218.
Kaufman, Harold B., Jr.; and Spiel, Albert, 3,499,396.
Klug, Sigmund L.; Finkel, Gilbert; and Sherain, Monroe, 3,514,294.
Rock, Stanley P.; Roth, Howard; and Sommers, John E., 3,518,092.
D'Cruz, Alex Wasy, to Du Pont de Nemours, E. I., and Company. Polyester cine film splicing composition containing a polyesterurethane, a hydrogen-bonding solvent and an organic solvent. 3,541,274, 11-17-70, Cl. 260-30.4
D'Cruz, Alex Wasy, to Du Pont de Nemours, E. I., and Company. Adhesive subbing layer for a photographic emulsion. 3,545,972, 12-8-70, Cl. 96-87.
D. C. Transit System, Inc.: *See—*
Kirk, James F., 3,490,626.
D.D.W., Inc.: *See—*
Westermann, William S., 3,514,813.
Dea, Henry J.; and Lynch, Paul E., to Kendrick Cattle Company, mesne. Pipe racking and transfer assembly. 3,501,027, 3-17-70, Cl. 214-16.
De Acetis, William; Schimbor, Richard F.; and Morris, Rupert C., to Shell Oil Company. Soap bar compositions. 3,520,816, 7-21-70, Cl. 252-108.
Deak, David G., 1/2 to Carothers and Carothers, a partnership composed of Carothers, W. Douglas, Jr., and Carothers, Floyd B. Field effect semiconductor device with multiple channel regions selectively switched from conducting to nonconducting. 3,535,599, 10-20-70, Cl. 317-235.
Deak, Ferenc J.: *See—*
Tjebbes, Jan A.; and Deak, Ferenc J.,3,492,094.
Deakin, Stanley Thomas, to Sealectro Limited. Card reader for sensing holes in punched cards. 3,536,896, 10-27-70, Cl. 235-61.11
Deal, Alice E. Puppets. 3,521,399, 7-21-70, Cl. 46-154.
Deal, Bruce E., to Fairchild Camera and Instrument Corporation. Control of surface inversion of P and N-type silicon using dense dielectrics. 3,550,256, 12-29-70, Cl. 29-571.
Deal, Charles D., to Reading Company. Continuous welded rail heater. 3,525,326, 8-25-70, Cl. 126-271.2
Deal, Joseph D., Jr.: *See—*
Flipse, John E.; Donaldson, Robert M.; Stevens, John L., Jr.; Mero, John L.; Deal, Joseph D., Jr.; Birrell, Norman D.; Oresko, Nicholas E.; Spencer, Luther E.; Graham, Alfred E.; Jones, Archer L.; Hirshman, Ira L.; Todd, Frederick S.; and Himes, William A.,3,522,670.
Deal, Robert E.: *See—*
Caruthers, John E.; and Deal, Robert E.,3,488,563.
Deal, Robert S.; and Evans, Joseph H., to Raychem Corporation. Pyrotechnic heating device. 3,551,223, 12-29-70, Cl. 149-15.
Dean, Albert G., to Budd Company, The. Series pneumatic and coil spring assembly. 3,491,702, 1-27-70, Cl. 105-199.
Dean, Albert G., to Budd Company, The. Ventilated disk brake apparatus. 3,491,856, 1-27-70, Cl. 188-264.
Dean, Albert G., to Budd Company, The. Sliding door. 3,531,896, 10-6-70, Cl. 49-488.

Dean, David L.: *See—*
Kelly, George D.; and Dean, David L.,3,539,387.

Dean, Donald Edwin, to Sheridan-Gray, Inc. Rotary stretch-forming machine. 3,545,242, 12-8-70, Cl. 72-151.

Dean, Duff L., to Triple D Industries, Inc. Boat fender. 3,498,251, 3-3-70, Cl. 114-219.

Dean, Frank J., Jr., to First Missouri Development Finance Corporation, mesne. Constant volume regulator for air duct systems. 3,538,945, 11-10-70, Cl. 137-499.

Dean, Harold L.; and Pearson, Robert T., to Mohawk Data Sciences Corporation, mesne. Device for feeding perforated webs. 3,490,668, 10-20-70, Cl. 226-74.

Dean, James Clement, to United Aircraft Corporation. Tail rotor biasing device. 3,532,302, 10-6-70, Cl. 244-17.19

Dean, James L.: *See—*
Watson, Eric I.; and Dean, James L.,3,493,252.

Dean, James M., to Erlich, Ralph R., Fine, Michael M. DeVito, Charles P., and DeVito, Albert P., as trustees, mesne. Temperature sensing device. 3,491,596, 1-27-70, Cl. 73-355.

Dean, James M., to De Vits, Charles P., De Vits, Albert P., Erlich, Ralph R., and Fine, Michael M., as trustees, mesne. Sealed detector with light impervious housing. 3,539,815, 11-10-70, Cl. 250-211.

Dean, James M., to De Vito, Charles P., De Vito, Albert P., Erlich, Ralph R., and Fine, Michael M., trustees. Temperature sensor. 3,540,283, 11-17-70, Cl. 73-362.

Dean, Jesse W. File suspension means. 3,524,688, 8-18-70, Cl. 312-184.

Dean, John I., to Dymo Industries, Inc. Composite contrast color embossed displays. 3,506,528, 4-14-70, Cl. 161-44.

Dean, John W.: *See—*
Christiansen, Robert G.; and Dean, John W.,3,501,462.
Christiansen, Robert G.; and Dean, John W.,3,503,959.

Dean, Karl C.: *See—*
Nichols, Ivan L.; and Dean, Karl C.,3,514,266.

Dean, Maurice R.; and Fisher, Henry B., to Phillips Petroleum Company. Method for producing acid-gas well containing sulfur. 3,488,092, 1-6-70, Cl. 299-5.

Dean, Maurice R.; and Klein, Frederick A., to Phillips Petroleum Company. Initiating in situ combustion using an autoignitible composition. 3,490,530, 1-20-70, Cl. 166-260.

Dean, Ralph L. Question and answer device. 3,535,796, 10-27-70, Cl. 35-9.

Dean, Robert B., to Borden Inc. Foaming acid-curable plastics. 3,506,599, 4-14-70, Cl. 260-2.5

Dean, Robert, to Fisons Limited, mesne. Conveying. 3,538,989, 11-10-70, Cl. 198-20.

Dean, Ruth A., to Taylor Chair Company, The. Reinforced construction for leg supported furniture. 3,529,555, 9-22-70, Cl. 108-156.

Dean, Sheldon W.: *See—*
Davidoff, Charles; Howe, Albert E., and Dean, Sheldon W.,3,528,896.

Dean, Walter B.: *See—*
Wessells, Henry W., III; and Dean, Walter B.,3,517,787.

Dean, Walter L.; and Ferguson, George N., to Procter & Gamble Company, The. Novel antiredeposition agent and built detergent compositions containing said antiredeposition agent. 3,523,088, 8-4-70, Cl. 252-138.

Dean, William Roger, to Royal College of Art, The. Sea urchin chair. 3,495,874, 2-17-70, Cl. 297-456.

Deane, Chester A. Closure construction. 3,537,504, 11-3-70, Cl. 160-243.

Deane, Clifford T., to Stampco, Inc. Hydraulic lift. 3,547,225, 12-15-70, Cl. 182-148.

Deane, Donald L., to General Tire & Rubber Company, The. Elastomeric closed end triple-rate bushing. 3,508,745, 4-28-70, Cl. 267-57.1

Deane, Norman. Prosthesis for chronic access to the peritoneum. 3,505,988, 4-14-70, Cl. 128-1.

De Angeli, Christopher, to Norma Fag Bearing Corporation. Antifriction bearing. 3,506,317, 4-14-70, Cl. 308-236.

DeAngelis, Armand, to Univis, Inc. Visor assembly for protective head gear. 3,491,371, 1-27-70, Cl. 2-6.

De Angelis, William M.; Rawstron, William W.; Grauer, Oscar H.; and Hatzis, Peter T., said De Angelis, Grauer and Hatzis assors to Fischer & Porter Company. Ball valve and construction thereof. 3,503,415, 3-31-70, Cl. 137-375.

DeAngelo, Gerald J., to Westinghouse Electric Corporation. Circuit interrupter with illuminated handle. 3,544,749, 12-1-70, Cl. 200-167.

de Angelo, Gerald J.; and Gelzheiser, Francis L., to Westinghouse Electric Corporation. Circuit breaker with thrust transmitting operating mechanism. 3,492,614, 1-27-70, Cl. 335-191.

Deans, Robert R.; and Putetti, Anthony M., to Scovill Manufacturing Company. Method of making blind sealing rivets. 3,534,419, 10-20-70, Cl. 10-27.

Dear, Robert E. A., to Allied Chemical Corporation. Haloalkoxysilanes. 3,536,744, 10-27-70, Cl. 260-448.8

Dear, Robert E. A., to Allied Chemical Corporation. Haloalkoxysilanes. 3,536,745, 10-27-70, Cl. 260-448.8

Dear, Robert E. A.; and Gilbert, Everett E., to Allied Chemical Corporation. Fumigation with bis(trifluoromethyl)disulfide. 3,505,459, 4-7-70, Cl. 424-336.

Dearborn Rubber Corporation: *See—*
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Deardorff, Donald L.: *See—*
Fath, Joseph; and Deardorff, Donald L.,3,518,223.

Dearing, Joseph L. Cover to protect window panes and the like during painting. 3,549,448, 12-22-70, Cl. 156-250.

Dearman, Grady E.: *See—*
Furr, John M.; and Dearman, Grady E.,3,547,398.

Dearsley, George, to American Machine & Foundry Company. Rod cutter. 3,526,232, 9-1-70, Cl. 131-21.

Deason, James R., to Searle, G. D., & Co.2-Mercapto-3-methoxyestra-1,3,5(10)-trien-17β- ol and congeners. 3,501,506, 3-17-70, Cl. 260-397.4

Deason, James R., to Searle, G. D., & Co. 2-and/or-4-Halogenated 17-oxygenated 3-aminoestra- 1,3,5(10)-trienes. 3,528,966, 9-15-70, Cl. 260-239.55

Deason, Max W. Pool deck form. 3,526,070, 9-1-70, Cl. 52-169.

Deason, Wallace R.; Fowler, Lewis; and Trump, Walter N., to Monsanto Company. Cavitation detector. 3,548,640, 12-22-70, Cl. 73-67.2

Deason, William M.: *See—*
Brown, James H.,; Young, William S.; and Deason, William M.,3,541,852.

Death, Frank S.; and Farnsworth, Walter B., to Union Carbide Corporation. Furnace jet devices. 3,519,259, 7-7-70, Cl. 266-34.

De Atley, Lindley S.; and Shadbolt, Charles Allan, to Thompson Hayward Chemical Co. Methods of controlling nematodes by the application of N-(alpha-cyano)-aliphaticamides of O,O-dialkylthiophosphorylacetic acid. 3,499,077, 3-3-70, Cl. 424-210.

Deaton, Norman N. Paleontological and archaeological educational article. 3,509,645, 5-5-70, Cl. 35-10.

Deavenport, Joe E.; and Sexton, Don W., to Weston Instruments, Inc., mesne. Digital voltmeter. 3,488,588, 1-6-70, Cl. 324-99.

Deaver, Avery Verne. Beverage container with straw. 3,542,278, 11-24-70, Cl. 229-7.

Deavours, Carl J.: *See—*
Shafer, William M.; and Deavours, Carl J.,3,492,113.

Deb, Satyendra Kumar; and Shaw, Robert Frank, to American Cyanamid Company. Electro-optical device having variable optical density. 3,521,941, 7-28-70, Cl. 350-160.

de Baan, Johannes Jasper; and Peddinghaus, Carl Ullrich, to August Bilstein KG. Automatic door closing apparatus. 3,487,494, 1-6-70, Cl. 16-51.

Debacher, Donald E.: *See—*
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de Back, Jacobus: *See—*
van Douwen, Adolf A.; de Back, Jacobus; Bouwman, Leendert P.; and Kluwen, Herman,3,541,917.

De Back, William, to Castle & Cooke, Inc. Strip peeler for pineapples. 3,528,470, 9-15-70, Cl. 146-222.

Debaere, Julius, 1/2 to Luto Gelderse Exportslachterijen N.V. Installation for the outside cleaning of slaughtered animals, more especially pigs. 3,523,324, 8-11-70, Cl. 17-1.

De Baillie, Arnold A., to Kearney-National Inc., mesne. Combination belt idler, clutch and brake for power lawnmower. 3,543,892, 12-1-70, Cl. 192-11.

Deban, Alois: *See—*
Phelps, Konrad; Deban, Alois; and Schnall, Gunter,3,523,498.

de Barbuat du Plessis, Francois. Metal connector for reinforcement rods. 3,512,329, 5-19-70, Cl. 52-665.

DeBaun, James R. World globe device. 3,545,102, 12-8-70, Cl. 35-46.

Debb, Arthur D.: *See—*
O'Connor, Donald T.; Debb, Arthur D.; and Erickson, Kenneth R.,3,548,644.

Debbrecht, Frederick J., to Hewlett-Packard Company. Automatic dispensing system with fluid pruging means. 3,491,369, 1-20-70, Cl. 222-309.

Debbrecht, Frederick J.; Lightner, Gene E.; and La Barre, Lawrence J., to Hewlett-Packard Company. Automatic dispensing system with fluid purging means. 3,491,368, 1-20-70, Cl. 222-70.

Debbrecht, Frederick J.: *See—*
Lightner, Gene E.; Debbrecht, Frederick J.; and La Barre, Lawrence J.,3,508,442.
Lightner, Gene E.; Debbrecht, Frederick J.; Muhlestein, Howard B.; and Seeds, Robert W. S.,3,542,071.

De Bell, John M.: *See—*
Edelstein, Joel J.; De Bell, John M.; and Parker, Charles H.,3,518,210.

De Bella, Gasper V., to Cal-West Electric, Inc. Portable light tower. 3,495,364, 2-17-70, Cl. 52-121.

De Belle, Jean-Jacques Roissard: *See—*
Hoffer, Maurice; Ackermann, Ernest; De Belle, Jean-Jacques Roissard; and Uldry, Andre,3,514,509.

de Besme, Henry Geneste, to O.E.M. Medical, Inc., mesne. Pneumatic pulsating body supporting construction. 3,538,910, 11-10-70, Cl. 128-24.

de Bianchi, Giovanni Sassoli, to S.a.S. Arpac. Resilient tooth brush with adjustable pressure point. 3,493,991, 2-10-70, Cl. 15-143.

De Biase, John R. Shoe finishing machine. 3,545,021, 12-8-70, Cl. 12-1.

De Biasse, Richard L. Piston for internal combustion engine. 3,505,934, 4-14-70, Cl. 92-239.

Debiesse, Jean; and Klein, Siegfried, to Commissariat a l'Energie Atomique. Thermoelectric generators. 3,522,106, 7-28-70, Cl. 136-202.

DeBisschop, Frank D., to Thomaston Special Tool and Mfg. Co., Inc. Method of manufacture of a timing device. 3,490,134, 1-20-70, Cl. 29-412.

De Bitetto, Dominick John, to U.S. Philips Co., Inc. Radiation beam positioning apparatus. 3,499,703, 3-10-70, Cl. 350-160.

deBitetto, Dominick John, to U.S. Philips Corporation, mesne. Three-dimensional display system employing optical wavefront reconstruction. 3,544,711, 12-1-70, Cl. 178-6.5

De Bitetto, Dominick John, to U.S. Philips Corporation, mesne. Holographic image system and method employing narrow strip holograms. 3,547,510, 12-15-70, Cl. 350-3.5

De Blas, Umberto; and Franco, Simone, to Ferrania S.p.A. Light sensitive article comprising a quinone diazide and polymeric binder. 3,551,154, 12-29-70, Cl. 96-91.

De Blende, Gentil: *See—*
De Schamphelaere, Lucien A. Amede; and De Blende, Gentil,3,543,597.

DeBloois, Roger C.: *See—*
Andrea, John J.; DeBloois, Roger C.; and Hogue, Noel E.,3,538,450.

De Boer, Eeltje; and Balder, Johan Cornelis, to U.S. Philips Corporation. Pulse modulation transmission system with abrupt input level transitions. 3,490,045, 1-13-70, Cl. 325-38.

De Boer, Harry. Augmented automobile heating system. 3,496,855, 2-24-70, Cl. 98-2.

de Boer, Reink, to Manitowoc Shipbuilding, Inc. System and apparatus for translating and discharging a load. 3,509,841, 5-5-70, Cl. 114-29.

De Boer, Thijmen J.; and Mackor, Adrianus, to Continental Oil Company. Nitrosation of hydrocarbons using nitrite esters with actinic light in the absence of halides. 3,544,438, 12-1-70, Cl. 204-162.

De Boer, Thijs Johannes, to U.S. Philips Corporation. Device comprising a display panel having a plurality of crossed conductors driven by an amplitude to pulse width converter. 3,526,711, 9-1-70, Cl. 178-7.3

de Boisblanc, Deslonde R., to United States of America, Atomic Energy Commission. Sodium-cooled fast-flux test reactor. 3,518,163, 6-30-70, Cl. 176-40.

deBolt, Edwin Stanton; and Meyers, Charles Frederick, to AMP Incorporated. Detachable electrical connector means. 3,546,664, 12-8-70, Cl. 339-256.

DeBolt, Erwin L. Collapsible shelter for ice fishermen, game hunters and the like. 3,509,891, 5-5-70, Cl. 135-4.

De Bona, John V. M., to Darin & Armstrong, Inc. Tandem wheel steering mechanism for a lift vehicle. 3,504,815, 4-7-70, Cl. 214-672.

Debono, Manuel, to Lilly, Eli, and Company. Photodimers of Δ^{48}-steroids. 3,501,507, 3-17-70, Cl. 260-397.4

Debono, Manuel, to Lilly, Eli, and Company. Ring a-fused pyridazone steroids. 3,542,770, 11-24-70, Cl. 260-239.5

Deboo, Gordon J., to United States of America, National Aeronautics and Space Administration. Gyrator type circuit. 3,493,901, 2-3-70, Cl. 333-80.

De Bottari, Louis A.: *See—*
Pizzurro, Vito F.; Fiala, Harvey E.; De Bottari, Louis A.; Uchizono, Shiro A.; and Rubin, Lowell M.,3,504,182.

DeBourgh Manufacturing Company: *See—*
Berg, Robert D. W., 3,521,919.

De Bower, Donald M.; and Warfield, Pete M., to Clay Equipment Corporation. Bottom discharge silo construction. 3,513,994, 5-26-70, Cl. 214-17.

Debras, Robert, to Societe de Fabrication d'Instruments de Mesure (S.F.I.M.). Illuminated pushbutton switch. 3,515,835, 6-2-70, Cl. 200-167.

de Brebisson, Michel: *See—*
Frouin, Jean-Claude; and de Brebisson, Michel,3,500,139.

deBretagne, Yves, to Honeywell Inc. Process controller selectively providing automatic control with reset or manual control. 3,549,976, 12-22-70, Cl. 318-591.

De Bretagne, Yves; Brossmer, Maximilien; and La Presle, Claude, to Honeywell Inc. Time proportioning control circuit with reset feedback and automatic reset lockout. 3,514,708, 5-26-70, Cl. 328-209.

Debron Carpets Limited: *See—*
Couquet, Pierre, 3,531,343.

DeBruin, Willard H.; and Koertge, Nobel H., to Cutler-Hammer, Inc. Direct action latching device with electrical and manual release means. 3,503,021, 3-24-70, Cl. 335-254.

DeBrunner, Ralph E., to Monsanto Research Corporation. Bis(dialkylaminoalkyl) 4,4'-carbonylphthalate. 3,502,712, 3-24-70, Cl. 260-475.

De Brunner, Ralph E., to Monsanto Research Corporation. Prepolymer composition of bis(dialkylaminoalkyl) 4,4'-carbonyldiphthalic acid and an aromatic di- amine. 3,530,074, 9-22-70, Cl. 252-184.

De Brunner, Ralph E., to Monsanto Research Corporation. Preparation of polyimide foams. 3,542,703, 11-24-70, Cl. 260-2.5

De Brunner, Ralph E.; and Fincke, John K., to Monsanto Research Corporation. Preparation of polyimide foams. 3,511,790, 5-12-70, Cl. 260-2.5

DeBrunner, Ralph E.: *See—*
Fincke, John K.; and DeBrunner, Ralph E.,3,511,733.

DeBruyn, Emile: *See—*
Mencacci, Samuel A.; and DeBruyn, Emile,3,545,985.

De Bruyne, George Pieter Adolf Mathildis: *See—*
Deraedt, Egide Jacob Hendrik; and De Bruyne, George Pieter Adolf Mathildis,3,526,722.

de Bruyne, Norman A. Photoelectric sensor for mercury thermometer column. 3,502,886, 3-24-70, Cl. 250-218.

DeBruyne, Norman Adrian. Logic devices. 3,489,343, 1-13-70, Cl. 235-201.

Debruyne, Pieter Adolf Mathildis: *See—*
De Raedt, Egide Jacob Hendrik; Peeters, Andreas Michiel Cyriel Corneel; and Debruyne, Pieter Adolf Mathildis,3,546,389.

de Buck, Jean-Jacques Rene Paul; and Montcouquiol, Jean-Michel, to International Standard Electric Corporation. Analog network telephone switching system. 3,525,815, 8-25-70, Cl. 179-18.

De Bucs, Eugen Szabo; and Oesterhelt, Gerhard, to Siemens Aktiengesellschaft. Solder for contact-bonding a body consisting of a germanium-silicon alloy. 3,544,311, 12-1-70, Cl. 75-134.

de Bucs, Eugen Szabo: *See—*
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Debus, Karl-Jurgen: *See—*
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de Capitani, Francesco, to Etablissement Trifolium. Method for manufacturing matches, and match-booklets. 3,532,477, 10-6-70, Cl. 44-43.

DeCapua, Nunzie L.: *See—*
Martin, John J.; DeCapua, Nunzie L.; and Sienkiewicz, Henry T.,3,493,714.

de Carbon, Christian Bourcier. Elastic shock-absorbing suspension. 3,499,505, 3-10-70, Cl. 184-6.

de Carbon, Christian Bourcier. Shock absorbers. 3,524,658, 8-18-70, Cl. 280-124.

De Caro, Aristide R., to Westinghouse Electric Corporation. Electric incandescent projection lamp having an improved dual-filament mount assembly, and method of making such assemblies. 3,530,326, 9-22-70, Cl. 313-115.

De Cat, Arthur Henri: *See—*
Monbaliu, Marcel Jacob; Van Poucke, Raphael Karel; and De Cat, Arthur Henri,3,522,051.
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Botcherby, Stephen Charles Lauder, 3,503,682.
Diederich, Marie Alphonse Paul Eugene Pierre, 3,543,170.
Pearson, Michael Geoffrey, 3,536,901.
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Smith, John Alec Sydney; and Tong, David Arthur, 3,515,981.

De Cecco Rudolph Guido; Fletcher Eldon Lawrence; and Wood, Stanley David, to Du Pont de Nemours, E. I., and Company, mesne. Melt spinning pack assembly. 3,488,806, 1-13-70, Cl. 18-8.

de Cerjat, Aymon, to Edouard Dubied et Cie (Societe Anonyme). Selecting device for individual selection of the knitting tools in very fine gauge knitting machines. 3,518,845, 7-7-70, Cl. 66-50.

De Ceuster, Joseph. Apparatus for promoting artificial breathing. 3,513,835, 5-26-70, Cl. 128-12.

Deceuster, Ralph J., to Stanray Corporation. Hydraulic ram for wheel lift for wheel truing machine. 3,540,164, 11-17-70, Cl. 51-236.

Dechaine, Robert C.: *See—*
Page, John A.; and Dechaine, Robert C.,3,498,793.

Dechantsreiter, Max J., to Harnischfeger Corporation. Crane with turntable locking means. 3,545,628, 12-8-70, Cl. 212-124.

Dechantsreiter, Max J., to Harnischfeger Corporation. Supporting means for flexible members. 3,546,400, 12-8-70, Cl. 199-12.

Dechene, Walter; and Rothert, Kurt, to Stahlwerke Sudwestfalen A.G. Method and apparatus for after-sizing hot-rolled bar stock. 3,513,679, 5-26-70, Cl. 72-225.

Dechenne, Roger: *See—*
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Deger, Erturk; and Schultz, John B., to RCA Corporation. Statistical method, under computer control, for the manufacture and test of mass produced articles. 3,526,836, 9-1-70, Cl. 324-158.

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de Goederen, Arie Cornelis. Reflex camera with built-in exposure meter. 3,521,542, 7-21-70, Cl. 95-42.

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David, Charles W.; Munson, Eugene A.; and DeGoes, Arlen E.,3,495,326.

De Good, Maynard J.; and Bowman, Clyde L., to Rapistan Incorporated. Article orienting conveyor. 3,508,640, 4-28-70, Cl. 198-33.

De Graff, Richard R., to Universal Oil Products Company. Process for catalyst hydration control. 3,520,945, 7-21-70, Cl. 260-671.

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De Haan, Hermanes Johannes Maria, to U.S. Philips Corporation, mesne. Associative memory devices. 3,500,468, 3-10-70, Cl. 340-174.

De Haeck, Robert Jean, to La Soudure Electrique Autogene Procedes Arcos. Electric arc welding. 3,511,960, 5-12-70, Cl. 219-73.

De Haes, Louis Maria; and Vanheertum, Johannes Josephus, to Gevaert-Agfa N.V. Thermographic recording processes and materials. 3,514,597, 5-26-70, Cl. 250-65.

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De Hann, Hermanes Johannus Maria, to U.S. Philips Corporation, mesne. Magnetic plate store with magnetic rod switches integral with the plate. 3,510,854, 5-5-70, Cl. 340-174.

Dehar, David C., to Ford Motor Company. Vehicle door hinge. 3,548,445, 12-22-70, Cl. 16-146.

Dehara, Masataka: *See—*
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De Hart, Dale M., to Barber-Colman Company. Method and apparatus to provide zero angle firing of a static latching switch in a noise-free electric controller. 3,506,852, 4-14-70, Cl. 307-252.

DeHaye, John J., to Thiokol Chemical Corporation. Pressure control system for solid propellant rocket motors. 3,529,425, 9-22-70, Cl. 60-254.

De Heer, Garrie; and Greenwood, James, to Acme Tool & Machine Company. Adjustable pneumatic timer. 3,487,854, 1-6-70, Cl. 137-625.15

Dehlen, Hilmar; and Richter, Kurt, to International Standard Electric Corporation. Arrangement enabling a telephone subscriber to block himself against terminating calls. 3,508,011, 4-21-70, Cl. 179-27.

Dehn & Sohne: *See—*
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Dehn, Edward H., to United States Steel Corporation. Apparatus for and method of case-hardening an arcuate member. 3,532,333, 10-6-70, Cl. 266-4.

Dehn, Roy F., to McNeil Corporation. Electrical distribution system. 3,509,292, 4-28-70, Cl. 191-49.

Dehne, Axel G., to Hughes Aircraft Company. Hydraulically driven cryogenic refrigerator. 3,530,681, 9-29-70, Cl. 62-6.

Dehne, Clarence A., to Webb, Jervis B., Company. Car actuated selective switch operating mechanism for conveyors. 3,538,853, 11-10-70, Cl. 104-88.

Dehne, Clarence A., to Webb, Jervis B., Company. Conveyor and dragline chain. 3,543,689, 12-1-70, Cl. 104-172.

Dehnert, Johannes; and Gnad, Gerhard, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Disazo dyes from bis-P,P'-diamino-alkylenedi- carboxylic acid anilides. 3,538,075, 11-3-70, Cl. 260-184.

Dehnert, Johannes; and Gnad, Gerhard, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Monoazo dyes derived from aminophthalimides. 3,551,407, 12-29-70, Cl. 260-152.

DeHoff, Ronald Lee, to Vanderbilt, R. T., Company, Inc. Liquid amine curing agents for polyepoxides. 3,539,659, 11-10-70, Cl. 260-834.

De Huff, John A., to Air Reduction Company, Incorporated. Cored electrode for welding in air. 3,542,998, 11-24-70, Cl. 219-146.

Deibel, Raymond A., to Trico Products Corporation. Pivot shaft assembly. 3,495,290, 2-17-70, Cl. 15-250.13

Deibel, Raymond A.; and Riester, William C., to Trico Products Corporation. Pneumatic actuator control system. 3,517,698, 6-30-70, Cl. 137-625.64

Deibel, Raymond A.: *See—*
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Deibel, William T., to Eaton Yale & Towne, Inc. Stop mechanism for a cam brake. 3,497,037, 2-24-70, Cl. 188-78.

Deicher, Oskar; Peter, Siegfried; and Buchholz, Otto, to Gewerkschaft Elwerath. Process for inhibiting sulphur deposits in natural gas well risers. 3,545,916, 12-8-70, Cl. 23-2.

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Deighton, William Ward; Phelan, Roy L.; Tanguy, Lewis Leland, Jr.; and Wallace, Richard Alfred, to Burroughs Corporation. Automatic accounting machine. 3,510,629, 5-5-70, Cl. 235-61.9

Deike, Robert F., 1/4 to Wyoming Investment Company, Inc., and 1/4 to Chamberlin, William H. Tension cap. 3,492,032, 1-27-70, Cl. 287-20.3

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Deiness, Serge, to U.S. Philips Corporation, mesne. Method of preparing a superconducting material. 3,525,150, 8-25-70, Cl. 29-599.

Deinet, Adolph J., to Tenneco Chemicals, Inc. Process for the production of benzaldehydes. 3,524,885, 8-18-70, Cl. 260-599.

Deinzer, Gerard J.; and Nupnau, Edward C., to Private Tele-Communications, Inc. Apparatus for remotely storing notes and messages for later retrieval. 3,535,464, 10-20-70, Cl. 179-100.1

Deisenroth, Robert J.: *See—*
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Deist, Herbert Henry, to Firestone Tire & Rubber Company, The. Tire uniformity optimizer. 3,491,493, 1-27-70, Cl. 51-324.

Deiters, Wilhelm, to Inventa A.G. fur Forschung und Patentverwertung. Reduction of alkali sulfates to caustic alkali with crackable gases. 3,501,270, 3-17-70, Cl. 23-184.

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Deitze, Wolfgang, to International Standard Electric Corporation. Circuit arrangement for an amplitude expandor in the electric telecommunication engineering. 3,538,351, 11-3-70, Cl. 307-264.

De Jager, Frank; Zegers, Leo Eduard; and Kuilman, Jan, to U.S. Philips Corporation, mesne. Time marking fluctuation and error reduction by code conversion at pulse transmitter, repeater and receiver stations. 3,491,298, 1-20-70, Cl. 325-13.

De Jean, Milton V.; and Shaffer, Dean E., to General Electric Company. Machine for applying coatings onto articles of manufacture. 3,498,260, 3-3-70, Cl. 118-70.

deJersey Phillips, Charles: *See—*
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Dejesa, Emil. Polishing machine. 3,550,176, 12-29-70, Cl. 15-21.

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De John, Kenneth: *See—*
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De Jong, Jan Ide, to Koninklijkc Zwavelzuurfabrieken v/h Ketjen N.V.Processes for obtaining substantially pure 4,4'- dihydroxy-diphenyl-propane-2,2. 3,535,389, 10-20-70, Cl. 260-619.

De Jong, Martinjn; Knapen, Matheus Jeanne Gerardus; and Botden, Theodoor Peter Johannes, to U.S. Philips Corporation, mesne. Method of making an electrical resistor. 3,534,472, 10-20-70, Cl. 29-620.

de Jonge, Martinus C. Grating. 3,523,396, 8-11-70, Cl. 52-668.

de Jonge, Willem Johannes: *See—*
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Dejoux, Jean Veran, to Optical Systems Corporation. Method and apparatus for projecting motion pictures. 3,501,229, 3-17-70, Cl. 352-91.

Dejoux, Jean Veran, to Optical Systems Corporation, mesne. Method and apparatus for making animated cartoons. 3,506,343, 4-14-70, Cl. 352-50.

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de Kinkelder, Petrus Johannes Alloysius. Liquid spraying apparatus. 3,504,854, 4-7-70, Cl. 239-78.

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Dekker, Jan; and Schuur, Gerrit, to Shell Oil Company. Process and apparatus for fibrillating and crimping films. 3,500,517, 3-17-70, Cl. 28-1.5

Dekking, Henri G. G., to Union Oil Company of California. Cross-linking of polymers having dependent ester groups with polyvalent metal alkoxides. 3,491,075, 1-20-70, Cl. 260-87.3

Dekking, Henri G. G., to Union Oil Company of California. Preparation of graft copolymers using ion-exchange bonding. 3,511,898, 5-12-70, Cl. 260-885.

de Klerk, John; and Kelly, Eugene F., to Westinghouse Electric Corporation. Multilayer thin film piezoelectric transducers. 3,497,727, 2-24-70, Cl. 310-8.6

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Shave, William H.; and Kurtz, Leonard D., 3,487,917.

DeKock, Robert J.; Veermans, Antonie; and Franssen, Pierre J., to Stamicarbon N.V.Preparation of ξ, ξ' bis(ξ-caprolactam). 3,541,081, 11-17-70, Cl. 260-239.3

de Koning, Arie Adrianus; and de Koning, Kornelis Korstiaan Karel. Telescopic shock absorber. 3,490,564, 1-20-70, Cl. 188-100.

De Koning, Jan, to N.V. Ingenieursbureau voor Systemen en Octrooien 'Spanstaal'. Hopperbarge. 3,538,875, 11-10-70, Cl. 114-29.

De Koning, Jan; and Van Der Veen, Romke, to N.V. Nestum II, mesne. Method and apparatus for the underwater measurement of the thickness of silt layer. 3,534,605, 10-20-70, Cl. 73-290.

de Koning, Jan; and van der Veen, Romke, to N.V. Ingenieursbureau voor System en Octrooien. Method and apparatus for determining the concentration of dredger spoil in a suspension of dredger spoil and water flowing through a pipe. 3,543,565, 12-1-70, Cl. 73-61.

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DeKorte, Peter; and Hoeve, Edward Ten, to Empro Products Company, Inc. Display holders. 3,538,630, 11-10-70, Cl. 40-5.

de Koster, Heinz A., to General Time Corporation. Electronic clocks. 3,509,715, 5-5-70, Cl. 58-50.

de Koster, Heinz A., to General Time Corporation. Smectographic display. 3,524,726, 8-18-70, Cl. 23-253.

de Koster, Heinz A.; and Ingenito, Michael J. Electronic counting or timekeeping system using glow discharge tube without permanent anode. 3,500,121, 3-10-70, Cl. 315-84.6

De Kroes, Jan Louis, to U.S. Philips Corporation, mesne. Switching network having a negative resistance device. 3,491,208, 1-20-70, Cl. 179-18.

Del-Pak, Media Corporation: *See—*
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De La Burde, Roger Z.; and Jarrell, James E., Jr., to Morris, Philip, Incorporated. Process for puffing tobacco stems. 3,529,606, 9-22-70, Cl. 131-140.

de la Cierva, Juan, to Dynasciences Corporation. Fluid-filled reflecting prism. 3,489,486, 1-13-70, Cl. 350-286.

de la Cierva, Juan, to Dynascience Corporation. Target acquisition system for high power optical devices. 3,503,318, 3-31-70, Cl. 95-44.

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De La Coussaye, Rene. Dispensing machine wherein the dispensing of the tape, cutting of the tape, and resetting of the dispensing mechanism are caused by the movement of the object to which the tape is to be applied. 3,535,186, 10-20-70, Cl. 156-355.

de la Cruz, Rodolfo V.; and Goodman, Richard E., to University of California, The Regents of the. Device and method of determining rock stress. 3,538,755, 11-10-70, Cl. 73-88.

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De La Mare, Harold; and Neumann, Friedrich E., to Shell Oil Company. Alkali metal phosphide-alkylene polyamine adducts as initiators in conjugated diene and vinyl arene polymerization processes. 3,532,772, 10-6-70, Cl. 260-879.

De La Rive Box, Robbert. Semi-permanent mosaic. 3,522,137, 7-28-70, Cl. 161-37.

De La Rue Frigister Limited: *See—*
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De La Rue Instruments Limited: *See—*
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De La Rue, Thomas, and Company: *See—*
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De La Vega, Robert P., to Geotel, Inc. Positive-feed powder hopper and method. 3,517,861, 6-30-70, Cl. 222-194.

Delacey, Norbert W.: *See—*
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Delacour, Jacques; Castela, Andre; and Moulin, Pierre, to Institut Francais du Petrole des Carburants et Lubrifiants. Apparatus for underwater drilling and coring loose sediments. 3,491,842, 1-27-70, Cl. 175-6.

Delacour, Jacques; Reynard, Remi; and Chatard, Michel, to Institut Francais du Petrole des Carburants et Lubrifiants. Flexible guide pipe for underwater drilling. 3,538,238, 11-3-70, Cl. 174-47.

Delacretaz, Richard E.: *See—*
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Delahunt, John F., to Esso Research and Engineering Company. Liquid storage tanks. 3,533,531, 10-13-70, Cl. 220-68.

Delahunt, John F.; and Turney, John J., to Esso Research and Engineering Company. Protective gas seals for non-metallic tank bottoms. 3,545,640, 12-8-70, Cl. 220-5.

Delahunty, John Nahum; Heslop, Robert Norman; and Ingamells, Wilfred Charles, to Imperial Chemical Industries Limited. Reactive dyestuff compositions. 3,489,502, 1-13-70, Cl. 8-25.

Delahunty, Richard J., to Co-Operative Industries, Inc. Electrical plastic conduit end fitting and assembly. 3,521,914, 7-28-70, Cl. 285-240.

Delaire, Gerard V.: *See—*
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Delamater, Charles E., to Diebold, Incorporated. Pneumatic system carrier closure construction. 3,506,216, 4-14-70, Cl. 243-35.

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De Lamater, Paul F., to Reliance Electric and Engineering Company, The. Elevator control having car call lockout of hall call stopping means. 3,511,344, 5-12-70, Cl. 187-29.

De Lancey, Warren H., to American Standard, Inc. Furnace heat exchanger construction. 3,500,814, 3-17-70, Cl. 126-110.

DeLand, Charles L., to Columbian Carbon Company. Method and apparatus for the production of carbon black. 3,490,870, 1-20-70, Cl. 23-209.4

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Delaney, Ronald A.; and Spielberger, Richard K., to International Business Machines Corporation. Ceramic composition, improved electronic devices employing same, and method of fabrication. 3,495,996, 2-17-70, Cl. 106-39.

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De Lang, Hendrik; and Bouwhuis, Gijsbertus, to U.S. Philips Corporation, mesne. Laser having an electrostrictive detuning member. 3,517,329, 6-23-70, Cl. 331-94.5

de Lang, Hendrik; Bouwhuis, Gijsbertus; and Ferguson, Eric Tapley, to U.S. Philips Corporation. Device for determining the displacement of a reflecting movable object relative to a fixed object with the use of an optical maser. 3,514,207, 5-26-70, Cl. 356-116.

de Lange, Herman Kasper Adriaan, to U.S. Philips Corporation, mesne. Dual magnet head arrangement electrically connected together for both recording and playback. 3,499,977, 3-10-70, Cl. 178-6.6

De Lange, Herman Kasper Adriaan, to U.S. Philips Corporation, mesne. Automatic level control for recording and reproducing video information. 3,501,585, 3-17-70, Cl. 178-6.6

De Lange, Herman Kasper Adriaan, to U.S. Philips Corporation. Device for producing a pulse sequence. 3,515,921, 6-2-70, Cl. 310-168.

Delange, Maurice; Huet, Henri; and Vertes, Paul, to Commissariat a l'Energie Atomique.Apparatus for converting UO_3 to UF_4. 3,518,060, 6-30-70, Cl. 23-262.

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DeLano, Don L.: *See—*
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Delano, William R. P. Solar still with floating slab-supporting particulate radiant energy receptor. 3,501,381, 3-17-70, Cl. 202-83.

Delany, Edward B., to Perkin-Elmer Corporation, The. Linearization of mass scanning in a mass spectrometer. 3,527,938, 9-8-70, Cl. 250-41.9

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Delany, James F., to RCA Corporation. Photocomposing apparatus. 3,509,803, 5-5-70, Cl. 95-4.5

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Delaplace, Paul Rene. Friction elements, in particular for hinges and bearings. 3,523,080, 8-4-70, Cl. 252-12.4

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del Arco Alvarez, Antonio. System and control mechanism for conveyences of combustible gas. 3,540,428, 11-17-70, Cl. 126-39.

Delarue, Christian G.; Sokoloff, Boris; and Warnery, Edmond P., to Societe Generale du Vide Sogev). Peripherally supported disc file. 3,550,102, 12-22-70, Cl. 340-174.1

Delarue, Jean-Claude: *See—*
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DeLaszlo, Henry G., to Societe Le Carbone-Lorraine. Prosthetic implants made from carbonaceous materials. 3,526,906, 9-8-70, Cl. 3-1.

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DeLaurentis, Angelo A.; and Gumpper, John C., to Westinghouse Electric Corporation. Method of constructing magnetic core structures. 3,540,120, 11-17-70, Cl. 29-609.

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de Lavenne, Hubert-Yves, to Automobiles Peugeot, and Regie Nationale des Usines Renault. Transverse propelling engine unit for a vehicle or the like. 3,497,024, 2-24-70, Cl. 180-54.

de Lavenne, Hubert Yves, to Automobiles Peugeot, and Regie Nationale des Usines Renault. Air heating control system. 3,501,093, 3-17-70, Cl. 236-68.

de Lavenne, Hubert Y., to Automobiles Peugeot, and Regie Nationale des Usines Renault. Safety device for a passenger on a vehicle. 3,524,678, 8-18-70, Cl. 297-216.

de Lavenne, Hubert Y., to Automobiles Peugeot, and Regie Nationale des Usines Renault. Individual restraining device for a vehicle user. 3,524,679, 8-18-70, Cl. 297-384.

DeLay Manford S. Steering transmission for an automatic body steering axle. 3,520,549, 7-14-70, Cl. 280-81.

De Lay, Manford S. Combination mower and mulcher. 3,531,923, 10-6-70, Cl. 56-25.4

Delbag Luftfilter GmbH: *See—*
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Delbouille, Andre; and Hoffait, Alfred, to Solvay & Cie. Process for the regulation of the polymerization of olefins. 3,551,403, 12-29-70, Cl. 260-94.9

Delbouille, Andre; and Toussaint, Henri, to Solvay & Cie. Polymerization of olefins in the presence of a catalyst comprising an organometallic compound, the reaction product of a transition metal compound and a hydroxychloride of a bivalent metal and an alkoxide of a metal of Group II-B. 3,526,616, 9-1-70, Cl. 260-94.9

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Delchar, Trevor A., to General Electric Company. Vacuum gap and vacuum switch devices including electron tunneling suppressing gas. 3,532,920, 10-6-70, Cl. 313-107.

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de Lesseaux, Jacques de Bazelaire: *See—*
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DeLeu, Robert P., to Reliance Electric and Engineering Company, The. Combination thrust and radial bearing. 3,544,179, 12-1-70, Cl. 308-168.

De Leu, Robert P.; Strang, Robert E.; and Garberick, Thayne K., to Reliance Electric Company. Oil gauge for pillow blocks. 3,518,962, 7-7-70, Cl. 116-118.

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Delfel, Norman E., to United States of America, Agriculture. Device for applying a coating of varying thickness. 3,522,792, 8-4-70, Cl. 118-415.

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Delfs, Hans-Jurgen Clas Heinrich, to Fuller Company. Fluidizing discharge apparatus for removal of fluidized material from a conveying system. 3,489,464, 1-13-70, Cl. 302-29.

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D'Elia, Anthony N.; and Stolarz, Edward M. Roller curler. 3,515,851, 6-2-70, Cl. 219-222.

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Delignieres, Robert, to Institut Francais du Petrole, des Carburants et Lubrifiants. Phase modulation oscillator. 3,503,008, 3-24-70, Cl. 331-117.

Delinger, Jack E. Adjustable exercise slant board. 3,545,748, 12-8-70, Cl. 272-58.

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DeLisio, Michael P. Collector plate construction. 3,530,645, 9-29-70, Cl. 55-112.

de Lisle, Auguste Louis, deceased (by de Lisle, Frances S.; executrix), to Phoenix Gems, Inc. Animal feed supplement and method of eliminating worms from animals. 3,539,685, 11-10-70, Cl. 424-127.

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Delius, Hermann, to Reichhold Chemicals, Inc. Process for preparing thixotropic solutions of oil- modified alkyd resins and resulting product. 3,501,425, 3-17-70, Cl. 260-22.

Delius, Hermann; Becker, Wilhelm; and Kiessling, Hans-Joachim, to Reichhold Chemicals, Inc. Heat-hardenable molding composition having as a basis aromatic diglycidyl ethers. 3,520,848, 7-21-70, Cl. 260-47.

Dell'Agnese, David E.; and Tinker, Townsend, to Modern Equipment Company. Apparatus for treating gases. 3,517,485, 6-30-70, Cl. 55-226.

Dell'Agnese, David E.; and Tinker, Townsend, to Modern Equipment Company. Cupola exhaust gas conditioning apparatus. 3,518,817, 7-7-70, Cl. 55-257.

Dell'Aira, Michele. Multiple-spirometer respiration measuring device. 3,516,401, 6-23-70, Cl. 128-208.

Dell Foods Limited: *See—*
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della Porta, Paolo; and Giorgi, Tiziano A., to S.A.E.S. Getters S.p.A. Cryopumping, particularly for hydrogen. 3,488,978, 1-13-70, Cl. 62-55.5

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Della Vite, Romuald Rene, to Societe Francaise d'Etiquetage Virey & Garnier. Labelling machine for bottles or the like, comprising bodies of various shapes or dimensions. 3,536,560, 10-27-70, Cl. 156-455.

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Delmer, Philip T.; and Torres, Ramon F., to Nordberg Manufacturing Company. Numberically controlled spinning machine. 3,496,747, 2-24-70, Cl. 72-81.

Del Monica, Peter P. Bender for wire and flat stock. 3,538,737, 11-10-70, Cl. 72-388.

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Delmore, Paul J., to Eastman Kodak Company. Magnetic recording element. 3,499,789, 3-10-70, Cl. 117-235.

Deloach, Alfonso, to United States of America, Navy. Audio frequency reject filter. 3,530,394, 9-22-70, Cl. 330-60.

Delobelle, Emile Jean, to Pneumatiques Caoutchouc Manufacture et Plastiques Kleber-Colombes. Rubber envelope for radial carcass of a pneumatic tire. 3,509,929, 5-5-70, Cl. 152-354.

Delobelle, Emile Jean, to Pneumatiques Caoutchouc Manufacture et Plastiques Kleber-Colombes. Breaker strip for pneumatic tires. 3,512,568, 5-19-70, Cl. 152-361.

Delobelle, Jacques: *See—*
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Deloire, Raymond, to La Spirotechnique. Demand pressure-reducing valve, in which the diaphragm tilts the valve head. 3,490,487, 1-20-70, Cl. 137-494.

DeLong, Robert J.; and Fletcher, Harry W., to Spectrol Electronics Corporation. Resistor with terminal in housing. 3,526,866, 9-1-70, Cl. 338-276.

De Long, William T.: *See—*
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De Long, William T., to McKay Company, The. Alkali metal aluminate bonded welding flux and manufacture thereof and coated welding electrode. 3,501,354, 3-17-70, Cl. 148-23.

Delong, William T., to Teledyne, Inc., mesne. Digester for use in paper making and allied industries. 3,551,121, 12-29-70, Cl. 29-196.1

De Longa, James C.: *See—*
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DeLorenzo, Joseph D., to Sperry Rand Corporation. Radar target-identifying apparatus. 3,523,292, 8-4-70, Cl. 343-5.

De Lorenzo, Paul, to Clark Equipment Company, mesne. Drawer construction for a refrigerator, cabinet or other enclosure. 3,539,240, 11-10-70, Cl. 312-333.

Delorme, Hector. Spraying and dusting machine. 3,504,853, 4-7-70, Cl. 239-77.

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Delp, Winner F., to Jade Corporation, The. Radiation sensitive means for determining the position of an object. 3,502,893, 3-24-70, Cl. 250-231.

Delp, Winner F., to Jade Corporation, The. Method of printing images on opposite sides of a substrate. 3,531,198, 9-29-70, Cl. 355-26.

Del Pedro, Michel, to Schweizerische Beratungsstelle fur Unfallverhatung (BFU). Test apparatus for enabling accurate adjustment of the force necessary for releasing safety ski bindings. 3,511,089, 5-12-70, Cl. 73-133.

Delprat, Jean Christian: *See—*
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Del Riesgo, Charles J., to Bell Telephone Laboratories, Incorporated. Signal frequency detector circuit. 3,546,600, 12-8-70, Cl. 328-109.

Del Rosso, Victor, to Hi Speed Checkweigher Co., Inc. Converging package timer. 3,545,591, 12-8-70, Cl. 198-32.

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Delta Rope & Twine Limited: *See—*
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Deltrol Controls Corporation: *See—*
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Deltuvia, Andrew A., Jr.: *See—*
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De Luca, Frank; and Marchetti, Albert A., to AMBAC Industries, Incorporated. Sumpless fuel injection nozzle. 3,511,442, 5-12-70, Cl. 239-533.

De Luca, John J.; and Rouzer, Larry E., to United States of America, National Aeronautics and Space Administration. Segmented superconducting magnet for a broad band traveling wave maser. 3,541,486, 11-17-70, Cl. 335-216.

De Luca, Paul V., to Collectron Corporation. Method of manufacturing a multi-segment commutator. 3,535,776, 10-27-70, Cl. 29-597.

De Luca, William H.: *See—*
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De Lucia, Victor E., to Torr Laboratories, Inc. Vacuum relay. 3,541,484, 11-17-70, Cl. 335-196.

DeLucia, Victor E., to Torr Laboratories, Inc. X-ray transmissive window assembly. 3,549,931, 12-22-70, Cl. 313-55.

DeLuxe Laboratories, Inc.: *See—*
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De Luxe Topper Corporation: *See—*
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Delve Inc.: *See—*
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Del Vecchio, Congetta. Makeup eyeglasses. 3,495,898, 2-17-70, Cl. 351-41.

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DelVecchio, Joseph T., to Instrument Systems Corporation, mesne. Shock and vibration resisting slide assembly. 3,545,824, 12-8-70, Cl. 308-3.8

Del Vecchio, Michael. Sanding machine and sanding belt for use therewith. 3,534,508, 10-20-70, Cl. 51-135.

Delves, James A. H., to Brees Plastics Limited. Calculating instrument. 3,526,973, 9-8-70, Cl. 35-31.

de Lyon, Armand Rene, to AMP Incorporated. Electron tube connector. 3,514,745, 5-26-70, Cl. 339-193.

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Delzant, Marcel: *See—*
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Delzenne, Amand; Hamelin, Raymond Armand; Outin, Michel Marie Jacques; and Pelecier, Claude Paul Rene, to Societe Anonyme: Ugine Kuhlmann, and Societe Anonyme. Process for the recovery of sulfur dioxide in residual gases. 3,503,185, 3-31-70, Cl. 55-73.

Delzenne, Gerard Albert: *See—*
Laridon, Urbain Leopold; Delzenne, Gerard Albert; and Verelst, Johan Lodewijk,3,494,767.
Laridon, Urbain Leopold; Delzenne, Gerard Albert; Verelst, Johan Lodewijk; and Van Goethem, Hugo Vital,3,495,979.

Delzenne, Gerard Albert, to Gevaert-Agfa N.V. Production of light-sensitive coatings for use in the manufacture of copying materials such as printing plates. 3,501,296, 3-17-70, Cl. 96-33.

Delzenne, Gerard Albert; Dann, Otto; Ulrich, Hans; and Danhauser, Justus, to Gevaert-Agfa N.V. Process for the photochemical cross-linking of polymers. 3,497,352, 2-24-70, Cl. 96-35.1

Delzenne, Gerard Albert; and Laridon, Urbain Leopold, to Gevaert-Agfa N.V. Composition and process for photochemical cross- linking of polymers. 3,502,470, 3-24-70, Cl. 96-35.1

Delzenne, Gerard Albert; and Laridon, Urbain Leopold, to Gevaert-Agfa N.V. Copying material for use in the photochemical preparation of printing plates. 3,522,045, 7-28-70, Cl. 96-36.

Delzenne, Gerard Albert; and Laridon, Urbain Leopold, to Gevaert-Agfa N.V. Process for the photopolymerisation of ethylenically unsaturated monomers. 3,523,792, 8-11-70, Cl. 96-35.1

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de Mailly, Jean Jacques. Construction of buildings. 3,501,875, 3-24-70, Cl. 52-69.

DeMaio, Dennis A., to Halcon International, Inc. Chemical process catalyst. 3,501,417, 3-17-70, Cl. 252-443.

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Demaison, Raymond J., to Quigley Company, Inc. Method for prolonging the life of the cone section of the refractory lining of a basic oxygen furnace of the Kaldo type. 3,518,330, 6-30-70, Cl. 264-30.

DeMallie, Howard R.; and Perconti, Thomas J., to Eastman Kodak Company. Automatic winding method and device. 3,514,047, 5-26-70, Cl. 242-66.

De Mallie, Howard R.; and Perconti, Thomas J., to Eastman Kodak Company. Surface winding device. 3,537,664, 11-3-70, Cl. 242-66.

Demarais, Williard H. Projectable and retractable enclosed structure. 3,546,827, 12-15-70, Cl. 52-29.

De Marco, Bernard; Kussy, Frank W.; and Cataldo, John B., to I-T-E Imperial Corporation, mesne. Industrial control relay. 3,544,929, 12-1-70, Cl. 335-126.

De Marco, Richard E.; and Gibbons, Ambrose J., Jr. Method of rendering substrates resistant to fungi and bacteria and resulting product. 3,541,215, 11-17-70, Cl. 424-287.

DeMarco, Sal S.; and Silva, Frank R., Jr., to Phillips Petroleum Company. Pressure control systems. 3,528,219, 9-15-70, Cl. 55-66.

De Marco, Salvador S., to Phillips Petroleum Company. Purification on nitrogen which contains methane. 3,507,127, 4-21-70, Cl. 62-28.

De Mare, Baltzar Leo. Pneumatic positioner. 3,492,988, 2-3-70, Cl. 128-33.

De Mare, Baltzar Leo, to United States of America, Army. Air gun. 3,495,580, 2-17-70, Cl. 124-11.

Demaree, Michael S. Method and apparatus for the testing and treatment of hearing deficiencies. 3,531,595, 9-29-70, Cl. 179-1.

Demarest, Philip C.; and Karlson, Karl, to Pinlites Inc., mesne. Method of making a light bulb with a plurality of independently connected filaments for indicating. 3,529,335, 9-22-70, Cl. 29-25.16

Demaria, Anthony J.: *See—*
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De Maria, Anthony J., to United Aircraft Corporation. Frequency modulation for lasers. 3,517,332, 6-23-70, Cl. 331-94.5

De Maria, Anthony J., to United Aircraft Corporation. Laser delay line using biasing signal. 3,544,805, 12-1-70, Cl. 307-88.3

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DeMaria, Anthony J.; and Gagosz, Ronald M., to United Aircraft Corporation. Laser pulse shaping system. 3,521,192, 7-21-70, Cl. 331-94.5

De Maria, Anthony J.; and Brienza, Michael J., to United Aircraft Corporation. Laser induced acoustic generator. 3,532,181, 10-6-70, Cl. 181-0.5

De Maria, Anthony J.; and Brienza, Michael J., to United Aircraft Corporation. Continuously variable laser-acoustic delay line. 3,544,806, 12-1-70, Cl. 307-88.3

De Maria, Anthony J.; and Penney, Albert W., Jr., to United Aircraft Corporation. Laser pulse generator using marx-bank pulser. 3,518,436, 6-30-70, Cl. 250-199.

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De Maria, Francesco, to American Cyanamid Company. Cyanamide additives for cement compositions. 3,503,766, 3-31-70, Cl. 106-89.

DeMarinis, Joseph Vincent; Schuster, William Daniel; and Wheeler, Robert Charles, to Sylvania Electric Products, Inc. Visual display system. 3,548,081, 12-15-70, Cl. 178-5.2

Demas, Harry J.: *See—*
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DeMattia, Victor A., Jr.; and Sansevero, Vincent J., Jr., to United Aircraft Corporation. Self-pressurized gas generation system. 3,525,217, 8-25-70, Cl. 60-37.

de May, Charles Frederic, II, to Perkin-Elmer Corporation, The. Optical filter changing mechanism. 3,529,889, 9-22-70, Cl. 350-315.

Demayo, John F. Electromagnetically operated tapping device. 3,507,339, 4-21-70, Cl. 173-100.

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Demecs, Richard S.: *See—*
Proctor, Noel B.; Crouch, Alfred E.; Beaver, Ruby C.; and Demecs, Richard S.,3,504,276.

De Meerleer, Albert H., to Plywood Research Foundation. Apparatus for applying adhesive to wood stock. 3,508,523, 4-28-70, Cl. 118-63.

DeMent, Eldon Ray: *See—*
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De Ment, Jack. Linearly moving array of exploding conductors embedded in a solid dielectric for pumping a laser. 3,537,031, 10-27-70, Cl. 331-94.5

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De Meo, Anthony J. Belt with hand-grips. 3,487,474, 1-6-70, Cl. 2-311.

De Meo, Attilio A., to Priva-Phone, Inc. Telephone apparatus for discriminating between desired and undesired calls. 3,514,548, 5-26-70, Cl. 179-84.

de Mercado, Robert I. Base and floor scrubber. 3,533,120, 10-13-70, Cl. 15-50.

DeMeritt, Clifford A.; and Brush, Edward E., to Jet-Avion Corporation. Freight pallet carrier. 3,514,001, 5-26-70, Cl. 214-620.

Demerliac, Guy, to Societe d'Instrumentation Schlumberger. Capacitance measuring apparatus utilizing voltage ramps of predetermined slope. 3,530,379, 9-22-70, Cl. 324-60.

Demers, Phillip A.; and Moon, William J. Belt construction and method of making same. 3,501,775, 3-24-70, Cl. 2-321.

de Mestral, George, to Sobico, Inc. Self anchoring hair curler. 3,533,418, 10-13-70, Cl. 132-40.

Demeter, Jeno, to Villamos Automatika Intezet. Electrostatic spray gun. 3,504,851, 4-7-70, Cl. 239-15.

Demeter, John; Demeter, Stephen; and Nardoza, Daniel, to R. C. Industries, Inc. Valve assembly with indicator. 3,536,095, 10-27-70, Cl. 137-557.

Demeter, Laszlo, to Simonacco Limited. Filtration. 3,537,582, 11-3-70, Cl. 210-189.

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Demetriades, Pan: *See*—
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DeMetrick, John, to Automatic Radio Manufacturing Co., Inc. Modular circuit construction. 3,522,485, 8-4-70, Cl. 317-101.

De Metz, Jean; and Millet, Francois, to Commissariat a l'Energie Atomique. Unitary dioptric lens. 3,544,198, 12-1-70, Cl. 350-189.

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de Mey, Charles F., II; and Dolgen, Igor E., to Perkin-Elmer Corporation, The. Pivoting sample cell holder. 3,501,242, 3-17-70, Cl. 356-246.

de Mey, Charles Frederic, II, to Perkin-Elmer Corporation, The. Mount for optical attenuator. 3,529,898, 9-22-70, Cl. 356-271.

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Deming, Andrew F., to Consolidated Electronics Industries Corporation. Plural motor control system including a remote positioning motor and a local indicating motor synchronous therewith. 3,495,143, 2-10-70, Cl. 318-18.

Deming, Andrew F.; and Marderwald, Leslie M., to Alliance Manufacturing Company, Inc. Method of making induction rotor. 3,496,632, 2-24-70, Cl. 29-598.

Deming, Andrew F.; and Marderwald, Leslie M., to Alliance Manufacturing Company, Inc. Single phase synchronous run, shaded pole electric motor. 3,541,367, 11-17-70, Cl. 310-114.

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Demler, Henry William, Sr., to AMP Incorporated. Explosive tool. 3,513,884, 5-26-70, Cl. 140-113.

Demler, Henry William, Sr., to AMP Incorporated. Crimping tool having sectional jaw. 3,534,583, 10-20-70, Cl. 72-410.

Demler, Henry William, Sr.; and Hoffman, Joseph Willard, to AMP Incorporated. Manifold sections to construct a manifold. 3,506,029, 4-14-70, Cl. 137-561.

Demler, Henry William, Sr.; and Watts, William Sewell, to AMP Incorporated. Pipe, hose or tube fluid connection device. 3,502,355, 3-24-70, Cl. 285-110.

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Demme, Ernst; Schachowskoy, Theodor; Koehnlein, Gerhard; and Thile, Heinrich, to Freudenberg, Weinheim. Synthetic leather and method of making same. 3,535,194, 10-20-70, Cl. 161-92.

Demmel, Enzio, to U.S. Philips Corporation, mesne. Multi-cavity klystron for microwave and UHF with interfering mode suppression slots in the ends of the drift tube. 3,509,412, 4-28-70, Cl. 315-5.39

Demmert, Lawrence E. Mounting mechanism for a seine-hauling power block. 3,535,811, 10-27-70, Cl. 43-8.

Demmig, Hans-Werner; and Rehnelt, Kurt, to Henkel & Cie GmbH. Adhesive-repelling surface coatings. 3,510,342, 5-5-70, Cl. 117-68.5

Demmig, Hans-Werner; and Rehnelt, Kurt, to Henkel & Cie, G.m.b.H. Low adhesion surface coatings of a melamine resin and substituted fluorene succinci acid-(9). 3,538,054, 11-3-70, Cl. 260-67.6

Demner, Howard. Dog shampoo device. 3,496,589, 2-24-70, Cl. 15-104.93

Demo, Max J. Boat with ferro-concrete hull. 3,491,711, 1-27-70, Cl. 114-65.

Demo, Max J. Piston-cylinder combustion, gas turbine engine. 3,525,214, 8-25-70, Cl. 60-13.

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De Montmollin, Rene; and Fasciati, Alfred, to Ciba Limited. Monoazo dyestuffs containing an acrylyl or benzoyl fiber-reactive substituent. 3,488,343, 1-6-70, Cl. 260-199.

Demorest, Keith E., to United States of America, National Aeronautics and Space Administration. Self-lubricating gears and other mechanical parts. 3,541,875, 11-24-70, Cl. 74-468.

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de Moya, Jose J.; and Moreira, Miguel G. Material feeder construction with reciprocating valve assembly. 3,528,589, 9-15-70, Cl. 222-275.

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Dempsey, Lawrence T.; and Babcock, Lyndon R., Jr., to Shell Oil Company. Low molecular weight polyolefins as internal lubricants for impact polystyrene compositions. 3,506,740, 4-14-70, Cl. 260-876.

Dempsey, Vince G., to Honeywell Inc. Means for sensing individual documents in a continuous chain feed. 3,502,323, 3-24-70, Cl. 271-3.

Dempsey, Vince G., to Sperry Rand Corporation. Synchronizing device for a high speed sheet stacking system. 3,512,771, 5-19-70, Cl. 271-3.

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Dempster, Harry E. Concrete floating structure. 3,490,407, 1-20-70, Cl. 114-0.5

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den Hertog, Martinus, to International Standard Electric Corporation. Satellite telephone systems with separate message circuits and signalling channels. 3,546,391, 12-8-70, Cl. 179-18.

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deNiet, Edmond, to U.S. Philips Corporation, mesne. Circuit arrangement for correcting a television signal. 3,521,177, 7-21-70, Cl. 328-162.

de Niet, Johan M. Daniel. Storage equipment and brackets therefor. 3,516,635, 6-23-70, Cl. 248-245.

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Denton, Clyde T., to Resilient Services Incorporated. Laminated materials for covering surfaces of buildings. 3,549,471, 12-22-70, Cl. 161-86.

Denton Plastic Products Corporation: *See—*
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Denton, Richard T., to Bell Telephone Laboratories, Incorporated. Optical multiplexing and demultiplexing systems. 3,532,890, 10-6-70, Cl. 250-199.

Denton, Tony C.: *See—*
Bergman, Gerald David; and Denton, Tony C.,3,508,127.

D'Entremont, Franklin R., to General Electric Company. Secondary winding combination for potential type instrument transformers. 3,489,975, 1-13-70, Cl. 336-182.

D'Entremont, John C.; and Taylor, Charles R., to Armco Steel Corporation. 100% Solid charge basic oxygen process. 3,535,106, 10-20-70, Cl. 75-43.

D'Entremont, John R.; and Young, Leith B., to Texas Instruments, Incorporated. Motor protector and method of making the same. 3,538,478, 11-3-70, Cl. 337-89.

Dentsply International Inc.: *See—*
Dougherty, Emery W., 3,509,089.
Gordon, Sydney G.; and Plowman, Richard E., 3,512,259.
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Denyes, Howard R. Method and apparatus for cleaning roller assemblies. 3,503,805, 3-31-70, Cl. 134-1.

Denyes, Wells: *See—*
Spangler, Gordon W.; and Denyes, Wells,3,492,195.

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Denz, Alfons: *See—*
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Denzler, Emil; and Zollinger, Hans Rudolf, to Schlatter, H. A., AG. Butt-welding device for billets. 3,518,398, 6-30-70, Cl. 219-101.

Denzler, Frank D.: *See—*
Chengges, James L.; and Denzler, Frank D.,3,512,638.

De Palma, Joseph S. Fluid actuated automatic portable fire extinguisher. 3,543,859, 12-1-70, Cl. 169-27.

De Palma, Ted V.; and Faust, Wayne J., to Universal Oil Products Company. Multiple section catalyst unit. 3,492,098, 1-27-70, Cl. 23-288.

De Paola, Theodore Clifford: *See—*
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Stockel, Richard Frederick; and Depaolo, George Robert,3,524,907.

De Paolo, Patrick A., Jr.; and Doran, Richard A., to Uniroyal, Inc. Phenolic polyphosphites and method of preparation. 3,509,241, 4-28-70, Cl. 260-927.

De Pas, Laddie A., to Whirlpool Corporation. Distillation apparatus utilizing frictional heating and compression of vapors. 3,489,651, 1-13-70, Cl. 202-187.

DePass, Ernest T.: *See—*
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DePaul, Richard E.; and Helms, Charles Robert, to Container Corporation of America. Stand-up box with locking structure. 3,521,811, 7-28-70, Cl. 229-34.

De Paula, Alfonso, 50% to Em Roc Inc. Retractable step assembly. 3,494,634, 2-10-70, Cl. 280-166.

De Pauw, Francis E.: *See—*
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De Pauw, Richard A.: *See—*
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De Persia, John L. Automatic bailer. 3,550,548, 12-29-70, Cl. 114-183.

De Pierri, William G., Jr., to Esso Research and Engineering Company. Stabilization of white oils. 3,523,083, 8-4-70, Cl. 252-48.6

de Pietri Tonelli, Pietro: *See—*
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Deplante, Henri, to Avions Marcel Dassault. Devices for locking terminal element to control rods. 3,493,253, 2-3-70, Cl. 287-109.

Deplante, Henri, to Avions Marcel Dassault. Jack system applicable to wing control of variable geometry aircraft. 3,501,114, 3-17-70, Cl. 244-46.

Deplante, Henri, to Avions Marcel Dassault. Airfoil position control for variable geometry aircraft. 3,501,115, 3-17-70, Cl. 244-46.

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Deplante, Paul E., to Avions Marcel Dassault. Process and material for sound proofing vehicles. 3,509,963, 5-5-70, Cl. 181-33.

Depner, William A., to Automatic Electric Laboratories, Inc. Relay construction. 3,516,039, 6-2-70, Cl. 335-270.

Depoorter, Henri; Ghys, Theofiel Hubert; and Libeer, Marcel Jan, to Gevaert-Agfa N.V. Photographic elements containing styryl dyestuffs. 3,544,325, 12-1-70, Cl. 96-84.

Depoorter, Henri; Rillaers, Guy Alfred; and Ghys, Theofiel Hubert, to Gevaert-Agfa N.V. Light-sensitive element containing filter dye. 3,540,887, 11-17-70, Cl. 96-84.

De Poy, Martin L., II: *See—*
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Depperman, Warren B.; Dorsey, William Philip; and McKenzie, Cornelius P., to Martin-Marietta Corporation. Fluidic oscillator. 3,536,084, 10-27-70, Cl. 137-81.5

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dePradenne, Henri P. Vayson, to Societe Generale de Constructions Electriques et Mecaniques (Alsthom). Impregnating varnish for electric motors wound with wire enamelled with polyester- imide. 3,532,661, 10-6-70, Cl. 260-31.2

De Pree, Lee. Touch sensitive capacitor timing percussion keying circuit. 3,507,973, 4-21-70, Cl. 84-1.24

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DePriest, Joseph R., to Westinghouse Air Brake Company. Code transmission system. 3,506,964, 4-14-70, Cl. 340-151.

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De Prisco, Carmine F.; Young, James G.; and Maropis, Nicholas, to Aeroprojects Incorporated. Automatic frequency control circuit for use with ultrasonic systems. 3,539,888, 11-10-70, Cl. 318-116.

De Puy, Charles H.: *See—*
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DePuy, Leland Q., to Parker-Hannifin Corporation. Tube coupling. 3,498,646, 3-3-70, Cl. 285-339.

De Puy, Robert P., to General Electric Company. Reverse current monitor. 3,493,839, 2-3-70, Cl. 321-12.

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de Radzitzky d'Ostrowick, Pierre Marie Joseph- Ghislain; and Hanotier, Jacques Daniel Victor, to Labofina, Soc. An.Resolution of optically active α-arylalkyl amines. 3,520,931, 7-21-70, Cl. 260-570.8

de Radzitzky d'Ostrowick, Pierre Marie Joseph Ghislain; and De Roocker, Alain Joseph Guillaume, to Labofina, Soc. An. Production of ethynyl benzenes. 3,542,888, 11-24-70, Cl. 260-668.

Deraedt, Egide Jacob Hendrik; and De Bruyne, George Pieter Adolf Mathildis, to International Electric Corporation. Switching system to divert calls to a second line. 3,526,722, 9-1-70, Cl. 179-18.

De Raedt, Egide Jacob Hendrik; Peeters, Andreas Michiel Cyriel Corneel; and Debruyne, Pieter Adolf Mathildis, to International Standard Electric Corporation. Telecommunication switching system. 3,546,389, 12-8-70, Cl. 179-18.

De Raedt, Egide Jacob Hendrik; and Verhille, Henri Albert Julia, to International Standard Electric Corporation. Interconnector for register-director system. 3,505,480, 4-7-70, Cl. 179-18.

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Derc, Roman, to English Electric Computers Limited. High speed flying hammer solenoid systems. 3,507,213, 4-21-70, Cl. 101-93.

D'Ercole, Dante R. Folding door construction. 3,494,408, 2-10-70, Cl. 160-206.

Derderian, Edward J.; and Bridger, William L., said Bridger assor. to said Derderian. Machine for forming upright, rectangular cartons. 3,537,361, 11-3-70, Cl. 93-53.

Deregnaucourt, Jacques V., to Northern Electric Company Limited. Circuits for stuffing synch, fill and deviation words to ensure data link operation at designed bit rate. 3,504,287, 3-31-70, Cl. 325-38.

Dereich, John E., to Neville Chemical Company. Printing on lubricated surface and ink composition useful therein. 3,513,122, 5-19-70, Cl. 260-33.8

De Remer, Harold A., to General Electric Company. Electric toaster carriage damping construction. 3,529,533, 9-22-70, Cl. 99-327.

De Remer, Harold A., to General Electric Company. Electric toaster casing construction. 3,550,804, 12-29-70, Cl. 220-4.

Deremo, Edwin J.; Carter, Joseph F.; and Workman, William, Jr., to Gardner-Denver Company. Overload responsive clutch and motor exhaust valve. 3,520,392, 7-14-70, Cl. 192-150.

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Dereniuk, Paul, to Davol Inc. Method of manufacturing a balloon catheter. 3,544,668, 12-1-70, Cl. 264-135.

Dereniuk, Paul; and Blecharczyk, Walter J., to Davol Inc. Method of manufacturing a plastic catheter. 3,539,674, 11-10-70, Cl. 264-130.

Derenthal, Jerome W., to Stapling Machines Co. Machine for separating, stacking and bundling box parts. 3,503,548, 3-31-70, Cl. 225-96.

De Respiris, Donald L., to TRW Inc. Atmospheric control utilizing an electrolytic carbon dioxide concentrator. 3,494,842, 2-10-70, Cl. 204-129.

deRetana, Anthony F., to Youngstown Sheet and Tube Company, The. Method of making a low alloy steel. 3,539,404, 11-10-70, Cl. 148-12.4

Dereuddre, Pierre: *See—*
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D'eri, Nicholas L., to United States of America, Army. Gyroscope arrangement. 3,534,617, 10-20-70, Cl. 74-5.1

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Derick, Burton N.; and Snyder, Saylor C., Jr., to Du Pont de Nemours, E. I., and Company. Luminous textile products. 3,508,589, 4-28-70, Cl. 139-420.

DeRidder, Ernst J., to Reynolds Metals Company. Extruding method and apparatus and parts therefor. 3,530,702, 9-29-70, Cl. 72-255.

de Ridder, Jan; Jacobs, Thomas Antonius Cornelis; and Prijn, Cornelis, to U.S. Philips Corporation, mesne. Projection lamp with elliptical mirror and light source mounting structure. 3,488,543, 1-6-70, Cl. 313-113.

de Ridder, Jon A.; and Freer, John J., to Diamond Shamrock Corporation. Chromic acid-dimer acid coating composition for metals. 3,535,167, 10-20-70, Cl. 148-6.2

DeRidder, Rene, to Manufacture de Produits Pharmaceutiques. 1-Hydroxypropyl H-indeno[1,2,3-cd] indazole. 3,538,111, 11-3-70, Cl. 260-310.

Derieg, Michael Edward; Fryer, Rodney Ian; and Sternbach, Leo Henryk, to Hoffmann-La Roche Inc. Methylation of 1,4-benzodiazepines. 3,534,021, 10-13-70, Cl. 260-239.3

Derieg, Michael Edward; and Pickard, Porter Louis, Jr., to Celanese Corporation. Process for the production of polyamide resin and product. 3,525,718, 8-25-70, Cl. 260-78.

Derieg, Michael E.; Fryer, Rodney Ian; and Sternbach, Leo Henryk, to Hoffmann-La Roche Inc. 1-Cyclic amidine-5-aryl-1,4-benzodiazepine and process. 3,523,947, 8-11-70, Cl. 260-256.4

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Dernehl, James U. Interlock switch. 3,504,143, 3-31-70, Cl. 200-50.

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Derobaix, Jacques, to Regie Nationale des Usines Renault, and Automobiles Peugeot. Resilient bumper. 3,529,861, 9-22-70, Cl. 293-63.

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de Rooij, Abraham Hermanus, to Stamicarbon N.V. Process for preparing a solution containing hydroxylammonium salt. 3,514,254, 5-26-70, Cl. 23-105.

De Rooij, Abraham H.; and Elmendorp, Jan, to Stamicarbon N.V. Process of preparing water-soluble phosphates. 3,525,585, 8-25-70, Cl. 23-106.

de Rosa, Louis A., to International Telephone and Telegraph Corporation. Printer using a solid state semiconductor material as a switch. 3,550,155, 12-22-70, Cl. 346-74.

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DeRose, Ralph A.; Mottl, Anton J.; and Madden, Richard A., to International Telephone and Telegraph Corporation. Flat-pack manipulation tools. 3,516,142, 6-23-70, Cl. 29-203.

de Rosset, Arman J.: *See—*
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De Rosset, Armand J., to Universal Oil Products Company. Hydrocarbon separation process. 3,504,048, 3-31-70, Cl. 260-674.

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de Rossi, Gunther; and Gimmi, Siegfried, to Swiss Aluminum Ltd. Continuous casting mold with perforated coolant distributor. 3,537,507, 11-3-70, Cl. 164-283.

Derr, William M.; and Harper, Bill J., to Sparton Corporation. Sea water depth transducer and system. 3,545,274, 12-8-70, Cl. 73-393.

Derreumaux, Antoine; and Lambert, Marc, said Lambert assor. to said Derreumaux. Closed-circuit system for the treatment of the waters of a swimming pool. 3,540,592, 11-17-70, Cl. 210-169.

Derrickson, Charles H. Screen printing of flexible bottles of square cross section. 3,490,363, 1-20-70, Cl. 101-38.

Derrickson, Charles H., to American Screen Process Equipment Co. Circuit board feeding and registering means in stencil printing machines. 3,536,004, 10-27-70, Cl. 101-123.

Derrickson, Charles H., to American Screen Process Equipment Co. Vacuum screen printing method. 3,536,005, 10-27-70, Cl. 101-129.

Derrickson, George W., to Carrier Corporation. Method of and apparatus for lubricating and cooling a rotary shaft seal assembly. 3,539,270, 11-10-70, Cl. 415-1.

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Dersch, Fritz; and Armentrout, Richard P., to GAF Corporation. Alkylated poly-N-vinyl-lactam stabilized silver halide emulsions. 3,505,067, 4-7-70, Cl. 96-66.

Dersch, Fritz; and Paniccia, Sally L., to GAF Corporation. Silver halide emulsions containing alkyl esters of benzimidazole carbamic acid anti-fogging agents. 3,499,761, 3-10-70, Cl. 96-66.5

Dersch, Fritz; and Paniccia, Sally L., to GAF Corporation. Thio and pithiocinnamic acids as anti- foggants and stabilizers. 3,507,658, 4-21-70, Cl. 96-109.

Derschmidt, Hans, to Bolkow Gesellschaft mit beschrankter Haftung. Stabilizing device for adjusting the blade setting angle of rotary wing aircraft rotor. 3,508,841, 4-28-70, Cl. 416-40.

Dertouzos, Michael L., to United Aircraft Corporation. Linear interpolation function generation. 3,532,864, 10-6-70, Cl. 235-154.

Deruaz, Colette. Buoyant garment. 3,540,067, 11-17-70, Cl. 9-342.

DeRugeris, John. Alternator having notatable magnetic field and armature structures. 3,535,572, 10-20-70, Cl. 310-168.

de Ruggieri, Pietro; Gandolfi, Carmelo; and Guzzi, Umberto, to Ormonoterapia Richter S.p.A. 2-Carbonyl-pregnatrienes and a method for their preparation. 3,494,918, 2-10-70, Cl. 260-239.55

de Ruggieri, Pietro; Gandolfi, Carmelo; and Guzzi, Umberto, to Ormonoterapia Richter S.p.A. 2-Cyano-3-amino-19-nor-pregna-1,3,5(10)- trienes and a method for their preparation. 3,503,960, 3-31-70, Cl. 260-239.5

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Rochelle, William R.; Lochridge, Joe C.; and Desai, Ardeshir Rustomji,3,507,126.

Desai, Kantilal P.; and Moore, Edward J., to Sinclair Research, Inc. Acoustic bomb and transducer apparatus. 3,537,541, 11-3-70, Cl. 181-0.5

Desai, Kishore T., to Burroughs Corporation. Record card feed device. 3,544,100, 12-1-70, Cl. 271-10.

Desai, Sudhir Harilal, to Chicago Bridge & Iron Company. Expander cycle for natural gas liquefication with split feed stream. 3,503,220, 3-31-70, Cl. 62-23.

de Saint-Pierre, Henri; Guerout, Jean Bernard; and Joly, Jean Claude, to AMP Incorporated. Connector staking machine. 3,497,939, 3-3-70, Cl. 29-203.

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De Sandre, Giovanni: *See—*
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DeSantis, Charles M.; and Zotter, Bruno W., to United States of America, Army. Low-noise travelling wave tube amplifier. 3,529,257, 9-15-70, Cl. 330-43.

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De Santo, Joseph J., to Russell, Thomas, known and operating as Intec. Beamless electrical weighing devices. 3,498,397, 3-3-70, Cl. 177-210.

DeSatnick, Allen H., to DeMag Engineering, Inc. Apparatus for use in removing manure from buildings having manure collecting channels. 3,530,832, 9-29-70, Cl. 119-22.

Desaulniers, Charles W., to Grace, W. R., & Co. Self-supporting laminate of polymeric films with an intermediate layer of mineral filler particles. 3,499,820, 3-10-70, Cl. 161-162.

Desaulniers, Charles W.; and Splitz, Stephen A., to Grace, W. R., & Co. Laminate having a low permeability to gases. 3,506,477, 4-14-70, Cl. 117-76.

DeSaussure Equipment Company, Inc.: *See—*
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De Saussure, William P., to DeSaussure Equipment Company, Inc. Folding-leg table with means to latch legs in extended position. 3,528,377, 9-15-70, Cl. 108-129.

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Descamps, Marcel; and Inion, Henri, to Laboratoires Labaz, mesne. 2-Aminomethyl-benzofuran derivatives. 3,496,186, 2-17-70, Cl. 260-295.

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Descarries, Raymond; Gaudry, Paul E.; and Ohlson, Bengt Erik, to Consolidated Foods Corporation, mesne. System and apparatus for electrically connecting a vacuum cleaner and a remote motor driven brush tool. 3,534,317, 10-13-70, Cl. 339-7.

Descarries, Raymond; Nichols, Donald J.; and Yantorno, Alfred A., Jr., to Consolidated Foods Corporation. Handle for a rotary brush. 3,535,728, 10-27-70, Cl. 15-180.
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De Schamphelaere, Lucien A. Amede; and De Blende, Gentil, to Gevaert-Agfa N.V. Device for the positioning control of an endless belt. 3,543,597, 12-1-70, Cl. 74-241.

Deschamps, Jacques, to CSF-Compagnie Generale de Telegraphie Sans Fil. Cathode ray tubes with electron beam deflection amplification. 3,496,406, 2-17-70, Cl. 315-17.

Deschamps, Robert Marcel, to Societe des Accumulateurs Fixes et de Traction (Societe Anonyme). Annular electrochemical accumulator having spirally wound electrodes. 3,490,949, 1-20-70, Cl. 136-13.

Deschenes, Pierre A.; Balgalvis, Gunars; and Regan, William N., to Northern Electric Company Limited. Line detector circuit. 3,509,283, 4-28-70, Cl. 179-18.

de Schwiegne, Andre; and Hoyaux, Marcel, to Fabrique d'Horlogerie La Vedette, and Jaz S.A. Saverine Bas-Rhine. Time signal generator. 3,505,806, 4-14-70, Cl. 58-38.

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De Simone, Joseph, to Westinghouse Electric Corporation. Valve for controlling elastic fluid. 3,522,929, 8-4-70, Cl. 251-298.

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Deskevich, Stephen; and Newman, John B., to International Business Machines Corporation. Data processing for bank proof machine. 3,492,655, 1-27-70, Cl. 340-172.5

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Deslauriers, Clovis F. Apparatus for die cutting and scoring paper sheets. 3,504,584, 4-7-70, Cl. 83-9.

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deStevens, George, to Ciba Corporation. 3-Piperazino-4'-tertiary amino- propiophenones. 3,538,091, 11-3-70, Cl. 260-247.5

De Stevens, George; and Werner, Lincoln Harvey, to Ciba Corporation. Hypotensive compositions containing a 3,4-dihydro-1,2,4-benzothiadiazine-1,1-dioxide, a hydrazino-phthalazine and an indole alkaloid of the apocynacease family. 3,499,082, 3-3-70, Cl. 424-246.

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Desty, Denis Henry; and Whitehead, David Montagu, to British Petroleum Company Limited, The. Burner for use with fluid fuels. 3,504,994, 4-7-70, Cl. 431-174.

Desty, Denis Henry; Whitehead, David Montagu; and Thomas, John Lionel, to British Petroleum Company Limited, The. Burner for fluid fuels. 3,551,085, 12-29-70, Cl. 431-243.

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Deutsch, Alfred, to Calbiochem. Reagent material and method for urea assay. 3,527,674, 9-8-70, Cl. 195-103.5

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Deutsch, Alfred, to Calbiochem. Reagent and method for assaying lactate dehydrogenase. 3,539,453, 11-10-70, Cl. 195-103.5

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Deutsch, Alfred, to Calbiochem. Reagent for assaying glutamate oxaloacetate transaminase. 3,546,074, 12-8-70, Cl. 195-103.5

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Deutschmann, Herbert; Wahnschaffe, Jurgen; Rudert, Wolfgang; and Mader, Herbert, to Daimler-Benz Aktiengesellschaft. Crankcase bottom part. 3,515,110, 6-2-70, Cl. 123-195.

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DeVault, Albert N., to Phillips Petroleum Company. Increased base number metal petroleum sulfonate and process for its preparation. 3,523,898, 8-11-70, Cl. 252-33.

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Devine, Edward J., to United States of America, National Aeronautics and Space Administration. Optical tracker having overlapping reticles on parallel axes. 3,532,894, 10-6-70, Cl. 250-233.

Devine, Edward, to Security Systems Inc. Holster radio alarm. 3,530,451, 9-22-70, Cl. 340-224.

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De Volder, Norman E., to General Electric Company. Glass covered semiconductor device. 3,533,832, 10-13-70, Cl. 117-201.

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deVries, Gerard, to Magnavox Company, The. Optical system for facsimile scanner. 3,551,595, 12-29-70, Cl. 178-7.1

DeVries, James H., to Sarns, Inc. Intermittent peritoneal dialysis method and apparatus therefor. 3,545,438, 12-8-70, Cl. 128-213.

DeVries, Larry L. Self-engaging post puller and driver. 3,549,126, 12-22-70, Cl. 254-132.

DeVries, Louis, to Chevron Research Company. Reaction product of aromatic hydrocarbons and thionyl chloride in the presence of metal halide Friedel-Crafts catalysts. 3,538,072, 11-3-70, Cl. 260-139.

deVries, Louis, to Chevron Research Company. Complex copper catalyzed polymerization of pyrolle and pyrolle derived compounds. 3,546,190, 12-8-70, Cl. 260-88.3

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De Vries, Robert C., to General Electric Company. Oriented Cr O_2 films and method of producing same. 3,546,005, 12-8-70, Cl. 117-106.

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Dewan, John T., to Schlumberger Technology Corporation. Two detector pulsed neutron logging tool. 3,509,342, 4-28-70, Cl. 250-83.1

Dewan, John T., to Schlumberger Technology Corporation. Submarine radioactivity logging technique. 3,532,881, 10-6-70, Cl. 250-43.5

Dewan, John T., to Schlumberger Technology Corporation. Multiple detector neutron logging technique. 3,532,884, 10-6-70, Cl. 250-83.1

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Dewar, Norman Ellison; and Razio, Said Ibrahim, to Grace, W. R., & Co. Phenolic germicidal compositions. 3,538,217, 11-3-70, Cl. 424-173.

Dewar, Robert Alfred; Maier, Volker Elmar; and Riddolls, Margaret Anthea, to Imperial Chemical Industries of Australia and New Zealand Limited. Process for the reductive dimerization of α,β-olefinically unsaturated nitriles or esters. 3,489,789, 1-13-70, Cl. 260-465.8

Dewar, Robert Alfred; Maier, Volker Elmar; and Riddolls, Margaret Anthea, to Imperial Chemical Industries of Australia and New Zealand Limited. Process of purification. 3,523,967, 8-11-70, Cl. 260-465.8

De Warga, Janos, to Power Semiconductors, Inc. Semiconductor device in a sealed package. 3,489,957, 1-13-70, Cl. 317-234.

D'Ewart, Benjamin B., Jr. Motor with linear reciprocating output. 3,525,887, 8-25-70, Cl. 310-27.

Dewas, Raymond. Guide means for weft inserting elements. 3,490,498, 1-20-70, Cl. 139-122.

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De Weerdt, Jozef Emiel; and Claes, Constant Joanna Pieter, to International Standard Electric Corporation. Automatic processing apparatus. 3,487,586, 1-6-70, Cl. 51-134.

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DeWeese, Raymond P.; Meisinger, Elmer H.; and Prindle, Frank D., to Poper, Geo D., Corporation. Windowed door for self-cleaning oven. 3,500,815, 3-17-70, Cl. 126-200.

DeWeese, William R.; and Bucha, Louis J., to Remington Arms Company, Inc. Laminated guide bar for chain saw. 3,545,505, 12-8-70, Cl. 143-32.

de Weger, Dirk, to Zenith Radio Corporation. Video signal processing circuit. 3,514,533, 5-26-70, Cl. 178-7.1

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DeWerth, Douglas W.; and Oehschlaeger, Richard M., to Peerless Manufacturing, division of Dover Corporation. Sealed-combustion system and flue apparatus suitable for use therein. 3,496,927, 2-24-70, Cl. 126-85.

Dewey, Davis R., II. Toilet bowl. 3,504,381, 4-7-70, Cl. 4-76.

Dewey, Davis R., Jr.; and Gallipeau, Robert B., said Gallipeau assor. to said Dewey. Air to water viewing device. 3,506,332, 4-14-70, Cl. 350-54.

Dewey, G. C., Corporation, The: *See—*
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Dewey, Gordon C.; and Stern, Nathan, to Dewey, G. C., Corporation, The. Apparatus for indicating the bearing of a vehicle relative to a point. 3,540,052, 11-10-70, Cl. 343-113.

Dewey, James F.; Scheitlin, Thomas G.; and Thomas, William R., to Whirlpool Corporation. Filter-sound front for air conditioner. 3,509,697, 5-5-70, Cl. 55-276.

Dewey, John L., to Reynolds Metals Company. Adjusting anode blocks in an electrolytic cell. 3,491,002, 1-20-70, Cl. 204-67.

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Dewez, Fernand J., Jr., 50% to Alger, James V. Circular saw blade of chromium nickel steel with an oxide coat. 3,507,633, 4-21-70, Cl. 29-183.

Dewhirst, Donald L.; and Kern, Calvin V., to United States of America, National Aeronautics and Space Administration. Deformable vehicle wheel. 3,493,027, 2-3-70, Cl. 152-11.

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Dewhirst, Kenneth C., to Shell Oil Company. α, α-Bis(trifluoromethyl)benzyl alkapolyenyl ethers. 3,489,813, 1-13-70, Cl. 260-611.

Dewhirst, Kenneth C.; Keim, Wilhelm; and Thyret, Helmut E., to Shell Oil Company. Process of producing N-(2,7-alkadienyl) amines. 3,502,725, 3-24-70, Cl. 260-577.

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Dewhurst, Brian B., to Ethyl Corporation. Process for making diphenoquinones. 3,491,128, 1-20-70, Cl. 260-396.

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De Witt, David; Gates, Harlan R.; and Platt, Alan, to International Business Machines Corporation. Isolation in epitaxially grown monolithic devices. 3,547,716, 12-15-70, Cl. 148-175.

DeWitt, Elmer J.; and Coleman, John F., to Goodrich, B. F., Company, The. High-impact, high temperature thermoplastic and method of preparing same. 3,536,786, 10-27-70, Cl. 260-880.

DeWitt, Ernest W.; Higgins, Edward D.; and Catalano, Philip F., to Continental Can Company, Inc. Powder dispensing device. 3,501,062, 3-17-70, Cl. 222-161.

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DeWitt, Wayne. Piling extractor. 3,534,996, 10-20-70, Cl. 294-102.

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de Wringer, Petrus H. J.; and Brieko, Meindert W., to Reactor Centrum Nederland. Electrical resistance heater. 3,492,463, 1-27-70, Cl. 219-553.

Dews, Thomas Kenneth, to Somerville Industries Limited. Handle divider construction. 3,511,434, 5-12-70, Cl. 229-52.

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Dexter, Fred A. Variable resistance diode in an automatic signal voltage leveler. 3,497,721, 2-24-70, Cl. 307-237.

Dexter, Martin, to Geigy Chemical Corporation. Derivatives of N,N',N''-tris(3-mercapto- propionyl)-hexahydro-s-triazine. 3,538,092, 11-3-70, Cl. 260-248.

Dexter, Martin; and Spivack, John D., to Geigy Chemical Corporation. Preparation of cyanoalkylated phenols by the reaction of a metal cyanide and hydroxy benzyl phenols. 3,496,211, 2-17-70, Cl. 260-465.

Dexter, Martin; Spivack, John D.; and Steinberg, David H., to Geigy Chemical Corporation. Diesters of certain dialkanolamines and di(lower) alkylhydroxyphenylalkanoic acids. 3,494,887, 2-10-70, Cl. 260-473.

Dexter, Martin; Spivack, John D.; and Steinberg, David H., to Geigy Chemical Corporation. Diesters of dialkyleneglycols and certain p-hydroxyphenyl-alkanoic acids. 3,497,549, 2-24-70, Cl. 260-473.

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Dey, Arabinda N., to Hooker Chemical Corporation. Method of activating fuel cell electrode by direct current. 3,544,380, 12-1-70, Cl. 136-86.

Dey, Arabinda N., to Hooker Chemical Corporation. Electrolytic hydrodimerization. 3,545,006, 12-1-70, Cl. 204-74.

Dey, Arthur R. Ultra-sensitive fish-bite indicator. 3,529,375, 9-22-70, Cl. 43-17.

Dey, Ervin J.; and Theakston, Harry A., Jr., to Standard Pressed Steel Co. Floating fastener unit. 3,537,499, 11-3-70, Cl. 151-41.76

Dey, Ervin J.; and Wilkens, Joseph H., to Standard Pressed Steel Co. Nut assembly. 3,495,643, 2-17-70, Cl. 151-41.74

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Bovagne, Rene; and Deynat, Gerard,3,537,693.

Deynat, Gerard. Device for continuous extraction of alkalis from the escape gases of a cement kiln. 3,503,187, 3-31-70, Cl. 55-290.

Deynat, Gerard, to Societe des Forges et Ateliers du Creusot. Device for cleaning tubes through which a current of dust-containing gas flows. 3,520,015, 7-14-70, Cl. 15-104.1

Deynat, Gerard, to Societe des Forges et Ateliers du Creusot. Device for protecting the collars of rotary kilns. 3,520,094, 7-14-70, Cl. 52-249.

Deynat, Gerard. Installation for closing the end of a gas conduit opening into a chimney. 3,520,291, 7-14-70, Cl. 126-285.

Deynat, Gerard, to Societe des Forges et Ateliers du Creusot. Device for introducing material into a rotary enclosure. 3,542,217, 11-24-70, Cl. 214-18.

Deynat, Gerard; and Lippmann, Jean Pierre. Installation for preheating powdery materials by the exhaust gases of the furnace for treating these materials. 3,545,732, 12-8-70, Cl. 263-21.

DeYoung, Edwin L., to Universal Oil Products Company. Dimerization of isoprene. 3,522,321, 7-28-70, Cl. 260-666.

DeYoung, Oliver A., Jr.; and Nelson, John F., to Mechanical Constructors Inc. Concrete in line discharge gate. 3,520,333, 7-14-70, Cl. 138-92.

Deyris, Emile, to U.S. Philips Corporation, mesne. Apparatus for producing binary crystalline compounds. 3,507,625, 4-21-70, Cl. 23-273.

Deyrup, Alden J., to Du Pont de Nemours, E. I., and Company. Closed cell foam. 3,492,250, 1-27-70, Cl. 260-2.5

Dezelan, Joseph E.; Hicks, Leon E.; and Johnson, Howard L., to Caterpillar Tractor Company. Pilot bleed system for remote control valve operation. 3,515,032, 6-2-70, Cl. 91-51.

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Gustafson, Lloyd E., 3,545,480.
Roos, William N., 3,517,689.

De Zurik, David B., Jr., to De Zurik Corporation. Anti-slam valve positioning means. 3,537,473, 11-3-70, Cl. 137-556.6

Dezzani, John. Soldering device. 3,531,038, 9-29-70, Cl. 228-41.

DFC Corporation: *See—*
Ware, William C., 3,532,268.

Dhaka, Vir A., to International Business Machines Corporation. Integrated circuits with surface barrier diodes. 3,506,893, 4-14-70, Cl. 317-235.

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Dhapman, Kenneth B. Frameless and trussless self-supporting building. 3,546,826, 12-15-70, Cl. 52-23.

d'Hauterive, Guy Grandsaignes, to Cellophane Investment Co., Ltd. Process of dyeing regenerated cellulose films. 3,495,927, 2-17-70, Cl. 8-4.

D'Hauterive, Guy Grandsaignes; and Hullot, Pierre, to Cellophane Investment Company Ltd. Adhesive coated films. 3,522,082, 7-28-70, Cl. 117-122.

Dhir, Partap C.; and Headd, Franklin L., to Xerox Corporation. Radiation sensitive document scanning means. 3,548,195, 12-15-70, Cl. 250-219.

DHJ Industries, Inc.: *See—*
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Dhuysser, Edward H.; and Eichin, Harry P., to Union Carbide Corporation. Method and apparatus for processing a continuous tubing. 3,507,669, 4-21-70, Cl. 99-176.

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Di-Dro Systems, Inc.: *See—*
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Diack, Arthur G. Showcase frame. 3,494,686, 2-10-70, Cl. 312-140.

Diacont, George P., to American Machine & Foundry Company. Stitching machine needle guide improvements. 3,541,983, 11-24-70, Cl. 112-227.

Diagraph Bradley Industries, Inc.: *See—*
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Diagravure Film Mfg. Corporation: *See—*
Kosar, Jaromir V., 3,503,743.

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Cormany, Charles L.; Dial, William R.; and Pray, Blaine O.,3,535,392.
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Diamant, Paul, to Allis, Louis, Company, The. Multisegmented squirrel cage rotor bars shaped for improved motor operating characteristics. 3,509,397, 4-28-70, Cl. 310-212.

Diamantides, Nick D.; and Hinks, William L. Vibratory drill apparatus. 3,532,174, 10-6-70, Cl. 175-56.

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Diamond, Howard; Eggleston, Robert T.; Badertacher, Roger H.; and Pletcher, David W., to Whirlpool Corporation. Moisture sensor. 3,540,278, 11-17-70, Cl. 73-336.5

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Diamond, James H.; and Noponen, George E.; to Minnesota Mining and Manufacturing Company. Polyurethane composition and surfacing. 3,546,148, 12-8-70, Cl. 260-18.

Diamond Machinery Company: *See—*
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Diamond, Milton J.; and Kinsey, Robert J., to General Motors Corporation. Pneumatic control of pressure pouring ladle. 3,504,825, 4-7-70, Cl. 222-61.

Diamond Power Specialty Corporation: *See—*
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Diani, Arthur C., to Bendix Corporation, The. Control apparatus for aircraft. 3,521,839, 7-28-70, Cl. 244-77.

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Dias, Fleming, to Zenith Radio Corporation. Stereo receiver with two-channel differential amplifier. 3,497,628, 2-24-70, Cl. 179-15.

Dias, Fleming, to Zenith Radio Corporation. Stereo receiver suitable for integrated circuit construction. 3,519,748, 7-7-70, Cl. 179-15.

Diassi, Patrick A., to Squibb, E. R., & Sons, Inc. 11,12-oxo and /or oxy substituted A-norpregnenes. 3,492,359, 1-27-70, Cl. 260-617.

Diassi, Patrick A., to Squibb, E. R., & Sons, Inc. Process for the production of intermediates for triamcinoline and related compounds. 3,493,563, 2-3-70, Cl. 260-239.55

Diassi, Patrick A., to Squibb, E. R., & Sons, Inc. Hydroxy, acyloxy and 11-keto-1,3,5(10),7- estratetraenes. 3,517,036, 6-23-70, Cl. 260-397.3

Diassi, Patrick A., to Squibb, E. R., & Sons, Inc. 12-Substituted steroids. 3,536,736, 10-27-70, Cl. 260-397.45

Diassi, Patrick A., to Squibb, E. R., & Sons, Inc.Acetonides of 9-halogenated 3β, 11β, 16α, 17α, 21-pentahydroxypregnanes. 3,541,602, 11-17-70, Cl. 260-239.55

Diassi, Patrick A., to Squibb, E. R., & Sons, Inc. 6-Halo-6-dehydro-A-norprogesterones. 3,542,811, 11-24-70, Cl. 260-340.5

Diassi, Patrick A., to Squibb, E. R., & Sons, Inc. Intermediates in the preparation of 6-halo-6- hydro-A-norprogestrones. 3,542,812, 11-24-70, Cl. 260-340.5

Diassi, Patrick A.; Neidleman, Saul L.; and Pan, Samuel C., to Squibb, E. R., & Sons, Inc. Process for halogenating 15-ketotololactones. 3,493,465, 2-3-70, Cl. 195-51.

Diassi, Patrick A.; and Principe, Pacifico A., to Squibb, E. R., & Sons, Inc.7α-Hydroxy-16,17-acetals and ketals of the pregnene series. 3,488,727, 1-6-70, Cl. 260-239.55

Diassi, Patrick A.; and Principe, Pacifico A., to Squibb, E. R., & Sons, Inc. Hydroxylated steroids. 3,488,733, 1-6-70, Cl. 260-397.45

Diassi, Patrick A.; and Principe, Pacifico A., to Squibb, E. R., & Sons, Inc.11α-Substituted steroids and process. 3,549,498, 12-22-70, Cl. 195-51.

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Diassi, Patrick Andrew; Weisenborn,Frank Lee; and Bernstein, Jack, to Squibb, E. R., & Sons, Inc.α-Amino-2,4,6-cycloheptatrienylmethylcephalo- sporins. 3,539,562, 11-10-70, Cl. 260-243.

Diassi, Patrick Andrew; Weisenborn, Frank Lee; and Bernstein, Jack, to Squibb, E. R., & Sons, Inc.α-Amino-2,4,6-cycloheptatrienylmethylpenicillins. 3,531,470, 9-29-70, Cl. 260-239.1

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Kjellberg, Burre I., 3,519,797.

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Dibble, Charles G.; and Howard, David Ferguson, to General Electric Company. Turbofan type engine frame and support system. 3,540,682, 11-17-70, Cl. 244-53.

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Dibelius, Norman R., to General Electric Company. Blood oxygenator. 3,503,850, 3-31-70, Cl. 195-1.8

Dibelius, Norman R., to General Electric Company. Expanding cannula. 3,509,883, 5-5-70, Cl. 128-348.

Dibelius, Norman R.; and Dounoucos Angelo, to General Electric Company. Closed rebreather-respirator circuit for renovation and supply of oxygen/nitrogen gas mixture. 3,489,144, 1-13-70, Cl. 128-142.2

Dibelius, Norman R.; and Dreves, Alfred E., to General Electric Company. Pressure seal-manifold unit. 3,534,860, 10-20-70, Cl. 210-321.

Dibelius, Norman R.; and Kexel, Edward Philip, to General Electric Company. Combined filter-incinerator device for waste disposal system. 3,509,835, 5-5-70, Cl. 110-8.

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Di Camillo, Carmine V., to Bowles Engineering Corporation. Numerical control device. 3,495,775, 2-17-70, Cl. 235-201.

Di Camillo, Carmine V., to Bowles Engineering Corporation. Force transducer and force integration rate logic. 3,514,056, 5-26-70, Cl. 244-78.

DiCamillo, Carmine V., to Bowles Engineering Corporation. Digital comparators. 3,530,869, 9-29-70, Cl. 137-81.5

Di Candilo, John. Tile fitting tool. 3,548,505, 12-22-70, Cl. 33-174.

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Di Carlo, Constantino. Multiple purpose furniture unit. 3,537,769, 11-3-70, Cl. 312-250.

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Sanni, Dominic A.; and Di Carlo, Dino, 3,510,054.

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Di Cesare, John J., Jr.; and Rutkowski, Edward J., to National Gypsum Company. Wall construction glazing system. 3,501,884, 3-24-70, Cl. 52-397.

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Dichter, Martha: *See—*
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Dick, Irving; and Schwartzman, Leonard, to Electrospace Corporation. Device for elimination of indicator wheel bounce. 3,524,358, 8-18-70, Cl. 74-98.
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Dickenson, Haydn Geoffrey; Granger, Colin David; Green, Peter Nicholl; Kelly, William; and Wang, Hastings, to Ward Blenkinsop & Company Limited. Tertiary-alpha-naphthylamines. 3,549,745, 12-22-70, Cl. 424-297.
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Dickinson, George Alfred; Oxley, Brian W.; and Thomas, James E. C., to Pilkington Brothers Limited. Method for the manufacture of float glass. 3,531,274, 9-29-70, Cl. 65-99.
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Dickinson, George R.; and Polley, Eugene J., to Zenith Radio Corporation. Television tuning mechanism. 3,492,608, 1-27-70, Cl. 334-82.
Dickinson, George R.; and Schmid, Richard G., to Zenith Radio Corporation. Drive mechanism for a television continuous tuner. 3,528,306, 9-15-70, Cl. 74-10.8
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Dickinson, Michael, to Lucas, Joseph, (Industries) Limited. Apparatus for testing the properties of rubber or rubber-like materials. 3,550,441, 12-29-70, Cl. 73-94.
Dickinson, Robert V., to Singer Company, The. Acoustic delay line employing torsionl waves and transducer for the same. 3,526,857, 9-1-70, Cl. 333-30.
Dickinson, Russell B. Post construction for basketball backboards. 3,544,110, 12-1-70, Cl. 273-1.5
Dickinson, Theodore M., to General Electric Company. Method and apparatus for forming a focused monoenergetic ion beam. 3,517,240, 6-23-70, Cl. 313-63.
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Dietzel, Karl; Peilstocker, Gunter; and Siemonsen, Hans-Peter, to Farbenfabriken Bayer Aktiengesellschaft, and Compagnie de Saint-Gobain. Laminated safety panes. 3,549,476, 12-22-70, Cl. 161-165.

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Peterson, Norman E.; and Courchene, Ernest E., Jr., 3,500,216.
Peterson, Norman E., 3,509,455.
Peterson, Norman E.; and Courchene, Ernest E., Jr., 3,517,125.

Digitronics Corporation: *See—*
Berezin, Evelyn; Wolf, Edgar; Cohen, William D.; and Marino, Francis C., 3,508,227.

DiGiugno, Angelo John: *See—*
Colgan, James Basil; DiGiugno, Angelo John; and Duggan, Robert James,3,550,091.

DiGiulio, Adolph V.; and Williams, David R., to Koppers Company, Inc. Vinyl aryl monomer-half ester copolymers by suspension polymerization. 3,509,110, 4-28-70, Cl. 260-78.5

Digre, Clifford B. Dust shield and pressure element for speaker magnet assembly. 3,492,443, 1-27-70, Cl. 179-119.

Dijksterhuis, Popko Reinder, deceased (by Mulkens, Casper Antonius Henricus; administrator), to U.S. Philips Corporation, mesne. Circuit arrangement for imitating the touch of musical instruments with percussion. 3,544,695, 12-1-70, Cl. 84-1.13

Dijksterhuis, Popko Reinder; and Verharen, Hermanus Arnoldus, to U.S. Philips Corporation, mesne. Method of producing samples for X-ray fluorescence analysis. 3,546,452, 12-8-70, Cl. 250-51.5

Dijkstra, Rients Jan; Hofland, Leendert Johannes; and Van Dam, Jacobus Franciscus, to U.S. Philips Corporation, mesne. Device comprising a plurality of series-arranged, semiconductor controlled rectifiers. 3,508,135, 4-21-70, Cl. 321-11.

Dijkstra, Tette J.: *See—*
Avis, Paul R.; Bekoog, Jurrianus; Cherdron, Harald H. O.; Dijkstra, Tette J.; Ohse, Hans H. W.; and Palm, Richard A.,3,501,436.

Dijstelbergen, Harmen Hein; Allnutt, Anthony John; Brook, Richard Anthony; and Semos, Robert Ernest Vickers, to British Scientific Instrument Research Association. Techniques for detecting geometrical defects in regular shaped flat objects. 3,521,749, 7-28-70, Cl. 209-82.

Dike, Inc.: *See—*
Bok, Edward, 3,503,693.
Bok, Edward, 3,535,048.
Bok, Edward, 3,535,049.
Bok, Edward, 3,535,050.
Bok, Edward, 3,545,877.

Dike-O-Seal, Incorporated: *See—*
Cleland, Ernie K., 3,512,756.
Olson, Richard L., 3,513,905.

Dikin, Gary L.; and Karpus, Alan F., to Insto-Gas Corporation. Infrared heater. 3,545,425, 12-8-70, Cl. 126-92.

Dikstein, Shabsay: *See—*
Bendavid, Menashe; Dikstein, Shabsay; and Sulman, Felix Gad,3,492,403.

Dil Pare, Armand L. Self-erase writing system. 3,513,570, 5-26-70, Cl. 35-66.

Dilchert, Heinz, to Dynamit Nobel Aktiengesellschaft. Solid propellant charge for rockets. 3,503,334, 3-31-70, Cl. 102-103.

Dilectrix Corporation: *See—*
Petriello, John V.; and La Torra, Michael, 3,502,498.

Dilectrix Corporation of Delaware: *See—*
Petriello, John V., 3,493,513.

Dileone, Roland Ralph, to American Cyanamid Company. Process for preparing a polyimide comprising reacting 3,4-dicarboxy-1,2,3,4-tetrahydro-1-naphthalene succinic dianhydride with a diprimary diamine in the presence of certain organic solvents. 3,501,443, 3-17-70, Cl. 260-78.

Dilg, Walter C., to Hydra-Cushion, Incorporated. Hydraulic cushion device. 3,499,546, 3-10-70, Cl. 213-43.

Dill, Ernest F., Jr. General utility basket. 3,489,385, 1-13-70, Cl. 248-311.

Dill, Hans G.: *See—*
Bower, Robert W.; and Dill, Hans G.,3,534,235.

Dill, Hans G., to Hughes Aircraft Company. Insulated gate field-effect transistor (IGFET) with semiconductor gate electrode. 3,544,399, 12-1-70, Cl. 148-187.

Dill, Raymond Joseph, to Reynolds Metals Company. Anode pins extraction apparatus for electrolytic reduction cells. 3,493,486, 2-3-70, Cl. 204-243.

Dill, Robert F. Sealed joint intersection. 3,524,390, 8-18-70, Cl. 94-18.

Dillard, George M., to United States of America, Navy. Moving-window detector for binary integration. 3,517,172, 6-23-70, Cl. 235-154.

Dillard, James W.: *See—*
Taber, Leroy; and Dillard, James W.,3,539,038.

Dillard, James W. RPM multiplier for automobile fan. 3,502,056, 3-24-70, Cl. 123-41.11

Dillard, Robert D.: *See—*
Cassady, Donald R.; Dillard, Robert D.; and Easton, Nelson R.,3,531,511.

Dillard, Robert D., to Lilly, Eli, and Company. Novel diethynylcarbinols. 3,535,386, 10-20-70, Cl. 260-617.

Dillard, Robert D., to Lilly, Eli, and Company. Process for the preparation of thiophenes. 3,544,596, 12-1-70, Cl. 260-332.8

Dillard, Robert D.; and Easton, Nelson R., to Lilly, Eli, and Company. 5-Methylene-2-pyrrolidones and their use in a process for making β,β disubstituted pyrrolidines. 3,542,778, 11-24-70, Cl. 260-250.

Dillarstone, Alan, to Colgate-Palmolive Company. Electrical heating device for fluent products. 3,518,410, 6-30-70, Cl. 219-300.

Dillberg, Raymond E., to Ormco Corporation. Vane pump. 3,498,233, 3-3-70, Cl. 103-146.

Dille, Roger M., to Texaco Inc. Synthesis gas purification. 3,531,265, 9-29-70, Cl. 48-196.

Dille, Roger M.: *See—*
Schlinger, Warren G.; Slater, William L.; and Dille, Roger M.,3,528,930.
Schlinger, Warren G.; Slater, William L.; and Dille, Roger M.,3,545,926.

Dillenberg, Horst, to Bergische Metallwarenfabrik Dillenberg & Co. KG. Electrolytic bath containing ammonium nitrate and a phenol. 3,542,658, 11-24-70, Cl. 204-146.

Dillenburger, Wolfgang, to Fernsch GmbH. Control arrangement for color television. 3,541,237, 11-17-70, Cl. 178-5.4

Dillenburger, Wolfgang; and Krause, Gerhard, to Fernseh G.m.b.H. Circuit arrangement for compensating for synch signal error in a television signal. 3,505,473, 4-7-70, Cl. 178-69.5

Dillenburger, Wolfgang; and von Felgel-Farnholz, Richard, to Fernseh GmbH. Color television pickup apparatus employing a single camera tube. 3,510,575, 5-5-70, Cl. 178-5.4

Dilley, William G., Jr.; and Ponto, Robert A., to Spectra Sonics. Compressor-limiter circuit. 3,550,028, 12-22-70, Cl. 330-29.

Dilley, William G. Single-ended, push-pull transistor amplifier with zero input impedance circuitry arrangement. 3,517,270, 6-23-70, Cl. 330-15.

Dilli, Sergio: *See—*
Garnett, John Lyndon; and Dilli, Sergio,3,522,158.

Dillin & Luce: *See—*
Luce, William Falconer; Hiller, Wolfang Wehner; Aquino, Marco Tulio Ventura; and Kaehler, Carlos Hahmann, 3,490,729.

Dilling, Marion R.; and Renn, John O., to Interface Mechanisms. Tape reel drive system. 3,498,571, 3-3-70, Cl. 242-203.

Dillingham, Edward: *See—*
Bates, Bradford; Dillingham, Edward; Pe Benito, Amable A.; and Southall, William M.,3,531,894.

Dillion, Joseph F., Jr.; and LeCraw, Roy C., to Bell Telephone Laboratories, Incorporated. Solid state laser. 3,526,850, 9-1-70, Cl. 331-94.5

Dillon, Edward M. Show card display construction. 3,487,570, 1-6-70, Cl. 40-104.07

Dillon, James J.: *See—*
Caroselli, Remus F.; and Dillon, James J.,3,498,826.

Dillon, Joseph F., Jr., to Bell Telephone Laboratories, Incorporated. Magnetically-controlled beam deflector. 3,515,457, 6-2-70, Cl. 350-151.

Dillon, Joseph F., Jr., to Bell Telephone Laboratories, Incorporated. Optical devices with zero linear magnetic birefringence. 3,516,726, 6-23-70, Cl. 350-151.

Dillon, Joseph F., Jr.; and Matthews, Herbert, to Bell Telephone Laboratories, Incorporated. Light beam deflector in which the light is diffracted by magnetic waves. 3,492,061, 1-27-70, Cl. 350-160.

Dillon, Leo H., to Abex Corporation. Control valve. 3,531,080, 9-29-70, Cl. 251-129.

Dillon, Roger L.: *See—*
Mueller, Albert J.; Dillon, Roger L.; and Schoen, Walter F.,3,536,461.

Dills, Raymond L.: *See—*
Hurko, Bohdan; and Dills, Raymond L.,3,507,265.

Dills, Raymond L., to General Electric Company. Combination broiler oven and kitchen ventilating hood. 3,514,578, 5-26-70, Cl. 219-400.

Dills, Raymond L., to General Electric Company. Self-cleaning, catalytic coated, cooking oven. 3,536,056, 10-27-70, Cl. 126-19.

Dills, Raymond L.; and Eff, Christian A., to General Electric Company. Combined expansible broiler oven and kitchen ventilating hood. 3,514,577, 5-26-70, Cl. 219-400.

Dillstrom, Karl Gunnar, to Aktiebolaget Atomenergi. Device for producing saturated steam from superheated steam and water. 3,509,857, 5-5-70, Cl. 122-31.

Dilo, Richard. Apparatus for making tubular non-woven fabrics. 3,508,307, 4-28-70, Cl. 28-4.

Dilo, Richard, to Oskar Diko KG, Firma. Apparatus for making non-woven fibrous tubing. 3,530,557, 9-29-70, Cl. 28-4.

Dilot, Rolf Magnue: *See—*
Jeppesen, Torsten; Holmstrom, Kjell Ingavr; and Dilot, Rolf Magnue,3,518,144.

Dilot, Rolf Magnus, to AB Akerlund & Rausing. Carton having a plastic lining made by deep- drawing. 3,511,428, 5-12-70, Cl. 229-14.

Dilsner, Frederick W.; Aronson, Aaron B.; and Jones, John E., to Cummins-Chicago Corporation. Method of encoding data on printed record media. 3,541,960, 11-24-70, Cl. 101-426.

Dilworth, John A., III; and Teman, James R., to Boeing Company, The. Method for enclosing and protecting weapons and inflatable structure weapons bay for high speed aircraft. 3,494,247, 2-10-70, Cl. 89-1.5

Di Maggio, Carmelo A.: *See—*
Boynton, Ira D.; Di Maggio, Carmelo A.; and Healy, James W.,3,516,889.

Dimeff, John, to United States of America, National Aeronautics and Space Administration. Thermal detector of electromagnetic energy by means of a vibrating electrode. 3,508,053, 4-21-70, Cl. 250-83.

Dimeff, John, to United States of America, National Aeronautics and Space Administration. Electrostatic charged particle analyzer having deflection members shaped according to the periodic voltage applied thereto. 3,532,880, 10-6-70, Cl. 250-41.9

Dimeler, Glenn R.: *See—*
Mills, Ivor W.; and Dimeler, Glenn R.,3,502,567.

Dimensional Concepts Inc.: *See—*
Simmons, James R., 3,500,569.

Di Meo, Franklin R.: *See—*
Burwell, Neil W.; Callaghan, John D.; and Di Meo, Franklin R.,3,501,969.

Dimitracopoulos, Panayotis C. Method of forming magnetic record discs. 3,502,761, 3-24-70, Cl. 264-153.

Dimitracopoulos, Panayotis C. Compact automatic slide projector. 3,542,464, 11-24-70, Cl. 353-57.

Dimitracopoulos, Panayotis C.; and Pezaris, Constantine D. Self contained transformer and low voltage lamp. 3,525,012, 8-18-70, Cl. 315-70.

Dimitrov, Dimiter Mihailov, to Nautchno-Izsledovatelski Institut Po Kinematografin I Radio. Method of chain-type synchronization in a plurality of cameras. 3,495,900, 2-17-70, Cl. 352-5.

Dimmock, John O.: *See—*
Phelan, Robert J., Jr.; and Dimmock, John O.,3,497,698.

Dimmock, Thomas H.: *See—*
Levoy, Myron M.; and Dimmock, Thomas H.,3,505,550.

Dimon, Carl A.: *See—*
Cook, Evin L.; and Dimon, Carl A.,3,490,527.

Dimon, Roy M.; and Williamson, Robert R., to Singer-General Precision, Inc. Apparatus for making a woven wire memory. 3,488,695, 1-6-70, Cl. 228-5.

Dimond, George H., to Consolidated Packaging Machinery Corporation. Bottle capper. 3,537,231, 11-3-70, Cl. 53-201.

Dimond, John A.; and Wharon, Armistead, to Xerox Corporation. Cleaning apparatus for electrostatic copying machines. 3,526,457, 9-1-70, Cl. 355-15.

Dimond, John A.: *See—*
Terry, Jack H.; and Dimond, John A.,3,520,602.

Terry, Jack H.; Dimond, John A.; and Wharton, Armistead,3,536,395.

Dimond, William; and Brawer, Irving, to Empire Piece Dyeing & Finishing Co., Inc. Apparatus for dyeing textile strands. 3,508,421, 4-28-70, Cl. 68-5.

Dimond, William; and Brawer, Irving, to Empire Piece Dyeing & Finishing Co., Inc. Apparatus for dyeing textile strands. 3,530,693, 9-29-70, Cl. 68-202.

Dimonte, Raul R. V. Invalid go-cart. 3,521,722, 7-28-70, Cl. 180-65.

Dimroth, Peter, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Process for coloring varnishes, lacquers, printing inks or plastic materials with pigments derived from α,β-diketobutyric acid derivatives. 3,512,999, 5-19-70, Cl. 106-20.

Dimroth, Peter; and Mayer, Kurt, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. p-Chloroazo compounds. 3,498,968, 3-3-70, Cl. 260-205.

Dimroth, Peter; and Mayer, Kurt, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Monoazo dyes of the pyrazolone series. 3,511,828, 5-12-70, Cl. 260-162.

Dimroth, Peter; and Mayer, Kurt, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Monazo dyes containing a 2-nitro diphenylamine. 3,516,982, 6-23-70, Cl. 260-206.

Dimter, Erwin: *See—*
Kramer, Kurt; and Dimter, Erwin,3,527,274.

DiMura, Gerardo. Apparatus for coating the interior of pipes. 3,530,822, 9-29-70, Cl. 118-9.

DiMuria, Anthony George. Means for expelling liquid from a container by applied external pressure. 3,527,391, 9-8-70, Cl. 222-400.7

Di Nardo, Frank. Method and apparatus for forming oblong holes of predetermined orientation in a bowling ball. 3,521,506, 7-21-70, Cl. 77-5.

Dincher, Richard E.; England, George G.; and Rogers, Robert W., to Singer Company, The. Electric baseboard heater units. 3,543,003, 11-24-70, Cl. 219-366.

Dine, Lester A.; and Lemmey, Edgar S. Combination collapsible portable viewer and carrying case. 3,536,390, 10-27-70, Cl. 353-73.

Dineen, John J. Short stroke two-cycle engine. 3,487,818, 1-6-70, Cl. 123-73.

Dines, Allen I.; and Brown, Willard Gene, to Miles Laboratories, Inc. Tableting lubricant. 3,518,345, 6-30-70, Cl. 424-44.

Di Netta, Joseph: *See—*
Egerton, John R.; and Di Netta, Joseph,3,524,000.

Di Netta, Joseph; and Egerton, John R., to Merck & Co., Inc. Anthelmintic compositions and methods using 2- substituted benzimidazoles and organo-phosphates. 3,549,749, 12-22-70, Cl. 424-200.

Di Netta, Joseph; and Egerton, John R., to Merck & Co., Inc. Combinations of 2-substituted benzimidazoles and substituted phenothiazines in the treatment of helminthiasis. 3,549,754, 12-22-70, Cl. 424-247.

Dingeldey, Paul: *See—*
Gerassimoff, Peter; and Dingeldey, Paul,3,520,737.

Dinger, Edward H., to General Electric Company. Voltage regulating circuit with reactor sensing means. 3,499,168, 3-3-70, Cl. 322-28.

Dinger, Edward H., to General Electric Company. Switching voltage regulator using time ratio control with forced commutation. 3,527,996, 9-8-70, Cl. 322-28.

Dinger, Hans, to Daimler-Benz Aktiengesellschaft. Fuel supply installation for injection-type internal combustion engines. 3,489,128, 1-13-70, Cl. 123-136.

Dinger, Hans; Deutschmann, Herbert; Conrad, Ulrich; and Muller, Willi, to Daimler-Benz Aktiengesellschaft. Liquid-cooled cylinder head of an internal combustion engine. 3,491,731, 1-27-70, Cl. 123-41.82

Dinger, Horst: *See—*
Ganter, Wolfgang; and Dinger, Horst,3,528,239.

Dinger, Paul H.; and Stultz, James T., to Ice Industries International, Inc. Bin actuated stop motion for ice making machines. 3,503,222, 3-31-70, Cl. 62-137.

Dinger, Paul H.; and Stultz, James T., to Ice Industries International, Inc. Limited subcooling condenser-receiver assembly for refrigerating systems. 3,545,228, 12-8-70, Cl. 62-506.

Dinges, Karl; Muller, Erwin; and Berlenbach, Wilhelm, to Farbenfabriken Bayer Aktiengesellschaft. Process for the dyeing and printing of fibre substrates. 3,536,440, 10-27-70, Cl. 8-115.6

Dinges, Karl: *See—*
Lassig, Wolfgang; Ulrich, Hans; Muller, Erwin; and Dinges, Karl,3,533,796.
Nutzel, Karl; and Dinges, Karl,3,491,136.
Ott, Karl-Heinz; Dinges, Karl; Rohr, Harry; and Pape, Georg,3,532,660.
Weitzel, Hans; Ebneth, Harold; Dinges, Karl; and Rohr, Harry,3,499,950.
Weitzel, Hans; Ebneth, Harold; Dinges, Karl; and Ott, Karl-Heinz,3,502,744.
Weitzel, Hans; Ebneth, Harold; Dinges, Karl; and Ott, Karl-Heinz,3,542,904.

Dingley, Roger Gavin: *See—*
Knights, Peter Brian; Dingley, Roger Gavin; and Shannon, Arthur Percy,3,536,899.

Dingman, John Charles; and Nieneker, Darle Lee, to Jefferson Chemical Company, Inc. Ethoxylated alkylphenol and alkyl carbonate fire extinguishing composition. 3,541,010, 11-17-70, Cl. 252-3.

Dingus, George W., to Cabot Corporation. Carbon black pelletization including heated boundary wall. 3,528,785, 9-15-70, Cl. 23-314.

Dingwall, Andrew G. F., to RCA Corporation. Integrated circuit planar transistor. 3,510,736, 5-5-70, Cl. 317-235.

Dingwall, Andrew G. F.; and Pearce, Robert K., to RCA Corporation. Thermoelectric generator comprising thermoelements of indium-gallium arsenides or silicon-germanium alloys and a hot strap of silicon containing silicides. 3,496,027, 2-17-70, Cl. 136-205.

Dingwall, David, to Organon Inc. Preparation of erytrocytes for immunochemical determination of human chorionic gonadotropin. 3,548,051, 12-15-70, Cl. 424-3.

Dinhobel, Friedrich: *See—*
Steiner, Wilford L.; and Dinhobel, Friedrich,3,514,535.

Di Nicolantonio, Frank: *See—*
Huggett, Colin Edward; Eisele, Hermann; and Di Nicolantonio, Frank,3,525,913.
Wagener, Paul W.; and Di Nicolantonio, Frank,3,492,508.

Dinlocker, Robert I., to Electro-Mechanical Instrument Company, Inc., mesne. Miniature edgewise electrical indicator. 3,510,773, 5-5-70, Cl. 324-146.

Dinnendahl, Frank. Pantograph. 3,496,795, 2-24-70, Cl. 74-469.

Dinnerstein, Albert J. Housing for an electrically powered mobile. 3,533,489, 10-13-70, Cl. 185-40.

Di Noia, Emanuel J.; and Breunich, Theodore R., to Universal Oil Products Company. Venturi operated flow switch. 3,510,616, 5-5-70, Cl. 200-81.9

Dinolfo, Charles R.; and Lehr, Robert M. Method and apparatus for heating shoe elements for the bonding thereof. 3,533,117, 10-13-70, Cl. 12-142.

DiNonno, Lance F., to Spence Engineering Company. Automatic steam start-up system. 3,536,093, 10-27-70, Cl. 137-489.5

Dinsmore, Robert L.: *See—*
Barnes, Robert L.; and Dinsmore, Robert L.,3,493,491.
Barnes, Robert L.; Dinsmore, Robert L.; and Steffgen, Frederick W.,3,527,693.

d'Installations Electriques (EGIE):*See—*
Cornet, Roland, 3,526,295.

Dinwoodie, Andrew Harper; and Fort, Godfrey, to United States of America, Navy, mesne. Difluoroaminomethyl trinitroethyl urea derivative. 3,511,878, 5-12-70, Cl. 260-553.

Dinwoodie, Andrew Harper; and Gourlay, George, to Imperial Chemical Industries Limited. Preparation of anhydrous monomeric glyoxal. 3,542,879, 11-24-70, Cl. 260-601.

Diolot, Lucien, to Societe Nouvelle Spidem. Expandable mandrel. 3,489,363, 1-13-70, Cl. 242-72.1

Diolot, Lucien, to Societe Nouvelle Spidem. Apparatus for varying the forces exerted on the work roll chocks in multi-roll rolling mills. 3,495,430, 2-17-70, Cl. 72-237.

Diolot, Lucien, to Societe Nouvelle Spidem. Shearing machine for continuous metal sheet. 3,524,374, 8-18-70, Cl. 83-626.

Diolot, Lucien, to Societe Nouvelle Spidem. Prestressed rolling mill with reversed clamping. 3,538,733, 11-10-70, Cl. 72-245.

Diolot, Lucien, to Societe Nouvelle Spidem. Method and device for controlling or measuring the thickness of a band being reeled up on a drum in a continuous movement. 3,540,247, 11-17-70, Cl. 72-8.

Dion, Georges. Societe d'Instrumentation Schlumberger Wire wound potentiometer with printed circuit terminals. 3,530,421, 9-22-70, Cl. 338-174.

Dion, Henry W.: *See—*
Wood, Peter W. K.; Coffey, George L.; Dion, Henry W.; Fusari, Salvatore A.; and Senos, Georgia D.,3,541,078.

Dion, Paul A.: *See—*
Hagarman, Paul O.; and Dion, Paul A.,3,537,493.

Dionisio, Louis A., 1/2 to Casella, Peter F. Rotary internal combustion engine. 3,550,564, 12-29-70, Cl. 123-8.37

Dionne, David C., to R & D Manufacturing Corporation. Article of furniture incorporating elongated tubing cluster support and locking means therefor. 3,537,670, 11-3-70, Cl. 248-188.7

DiPalma, Sebastian M.: *See—*
Paige, John L.; and DiPalma, Sebastian M.,3,523,929.

Di Paola, Joel Francis. General Electric Company Uriedo substituted organosilanes. 3,506,701, 4-14-70, Cl. 260-448.2

Di Pasquantonio, Ernest A.: *See—*
Ruddock, William F.; and Di Pasquantonio, Ernest A.,3,505,501.

Dipelesi, James L. Carpet fastening device. 3,528,123, 9-15-70, Cl. 16-16.

DiPerna, James. Suction dredging apparatus. 3,512,280, 5-19-70, Cl. 37-57.

Di Piazza, Gerald C., to Bell Telephone Laboratories, Incorporated. Microwave phase shifter. 3,546,636, 12-8-70, Cl. 333-31.

Di Piazza, Learco: *See—*
Bonnet, Georges L.; Di Piazza, Learco; Junger, Jean-Marie; Leroy, Rene S.; Mollica, Guido; and Monzani, Ermelino,3,533,318.

di Pierro, Michael J.; and Mastrovito, Donald P., to Standard Oil Company (Indiana). Plastic clasp. 3,490,805, 1-20-70, Cl. 292-258.

Di Pietro, Joseph; and O'Brien, Merrill N., Jr., to Celanese Corporation. Sulfonated aryl phosphates and process for making same. 3,549,729, 12-22-70, Cl. 260-947.

Di Pietro, Joseph: *See—*
Roberts, William J.; and Di Pietro, Joseph,3,549,697.

Di Pietro, Raffaele, to Societa Farmeuropa-Fedip. Method of making medical sticks. 3,506,009, 4-14-70, Cl. 128-267.

Di Pilla, Anthony A., to Robertshaw Controls Company. Pushbutton assembly means, casing, and locking means. 3,511,954, 5-12-70, Cl. 200-167.

DiPilla, Anthony A., to Robertshaw Controls Company. Illuminated push-button switch construction with safety set and reset mechanism. 3,514,564, 5-26-70, Cl. 200-167.

Di Pilla, Anthony A., to Robertshaw Controls Company. Pushbutton switch construction with safety set mechanism. 3,517,148, 6-23-70, Cl. 200-167.

DiPilla, Anthony A., to Robertshaw Controls Company. Illuminated switch construction with releasing slidable cam. 3,522,402, 8-4-70, Cl. 200-167.

DiPilla, Anthony A., to Robertshaw Controls Company. Two position tubular lighted push button construction. 3,523,169, 8-4-70, Cl. 200-167.

Di Pilla, Anthony A., to Robertshaw Controls Company. Locking and release means in a switch assembly. 3,528,099, 9-8-70, Cl. 200-168.

Dipner, Charles D., to Johnson & Johnson. Method of making a composite absorbent laminate. 3,540,963, 11-17-70, Cl. 156-244.

Di Ponio, John J., to Ford Motor Company. Method for rolling a race for a ball bearing. 3,528,271, 9-15-70, Cl. 72-108.

Di Ponio, John J., to Ford Motor Company. Method for rolling gears. 3,540,108, 11-17-70, Cl. 29-159.2

Diprose, Gordon, to Imperial Chemical Industries Limited. Amalgam process for producing adiponitrile from acrylonitrile. 3,542,845, 11-24-70, Cl. 260-465.8

Diprose, Gordon; and Gomm, Albert Stanley, to Imperial Chemical Industries Limited. Process for removing sodium bicarbonate from a reaction product containing adiponitrile. 3,542,844, 11-24-70, Cl. 260-465.8

Dirkes, James V. Space heating apparatus. 3,542,373, 11-24-70, Cl. 263-19.

Dirks, Arthur A. Powered cutting apparatus for splitting-bones and the like. 3,488,797, 1-13-70, Cl. 17-23.

Dirks Electronics Corporation: *See—*
Dirks, Gerhard, 3,530,285.
Dirks, Gerhard, 3,548,381.

Dirks, Gerhard. Selective storage apparatus having discs with radial tracks. 3,488,640, 1-6-70, Cl. 340-174.1

Dirks, Gerhard, to Dirks Electronics Corporation. Arrangement for performing arithmetic operations using an intermediate storage. 3,530,285, 9-22-70, Cl. 235-176.

Dirks, Gerhard. Selection circuit. 3,541,307, 11-17-70, Cl. 235-61.6

Dirks, Gerhard, to Dirks Electronics Corporation. Data handling systems. 3,548,381, 12-15-70, Cl. 340-172.5

Dirks, Maurice E. Fence wire securing means. 3,513,747, 5-26-70, Cl. 85-9.

Dirks, William. Motor vehicle acceleration responsive indicator. 3,503,364, 3-31-70, Cl. 116-114.

Dirkx, Chielbertus Johannes Simon. Tray set. 3,498,471, 3-3-70, Cl. 211-131.

Dirr, Rudolf: *See—*
Neuffer, Ingemar; Buder, Eugen; Dirr, Rudolf; and Waldmann, Hermann,3,506,900.

Disc Pack Corporation: *See—*
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Discoe, Harlen A. Hydro bathtub safety aid. 3,545,013, 12-8-70, Cl. 4-185.

Discry, Henri, to Glaverbel S. A. Methods for the production of ribbed glass sheets. 3,531,273, 9-29-70, Cl. 65-94.

Discry, Henri, to Glaverbel S.A. Apparatus for the production of ribbed glass sheets. 3,536,465, 10-27-70, Cl. 65-245.

Disesa, Frank J.; and Secrest, James H., to Warwick Electronics Inc. Portable radio with adjustable tubular casing. 3,541,452, 11-17-70, Cl. 325-361.

Dishal, Milton; and Le Grand, Jesse S., to International Telephone and Telegraph Corporation. Automatic gain control amplifier system. 3,526,849, 9-1-70, Cl. 330-139.

Dishburger, Henry J.; and Coker, William P., to Dow Chemical Company, The. Terpolymers of a C-substituted aziridine, an N-substituted aziridine, and an organic dihalide. 3,498,932, 3-3-70, Cl. 260-2.

Dishburger, Henry J.; and Coker, William P., to Dow Chemical Company, The. Acrylic-modified polyalkylenimine or polyalkylene- polyamine. 3,538,024, 11-3-70, Cl. 260-2.

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Disselen, Mattheus Gerardus, to Nederlandse Organisatie voor Toegepast- Natuurweten-Schappelijk Onderzoek ten Behoeve van de Rijksverdediging. Radar sending installation. 3,528,071, 9-8-70, Cl. 343-17.1

Di Stefano, Ralph D., to RCA Corporation. Selective etching of chromium-silica laminates. 3,502,555, 3-24-70, Cl. 204-143.

Distillers Chemicals and Plastics Limited: *See—*
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Distler, Harry; Hauss, Alfred; Pohlemann, Heinz; and Stanger, Bernd, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Reduction of static electrification of polyvinyl chloride. 3,537,884, 11-3-70, Cl. 117-100.

Distler, Harry; Klatt, Gerhard; and Schneider, Kurt. Production of alkyl-β-hydroxyalkyl thioethers and alkenyl-β-hydroxyethyl thioethers. 3,544,636, 12-1-70, Cl. 260-609.

Distler, Harry; and Schneider, Kurt, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of glycol monoesters of carboxylic acids. 3,529,002, 9-15-70, Cl. 260-410.6

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Dittrich, Walter; and Konrad, Jakob, to Maschinenfabrik-Augsburg-Nurnberg A.G. Vehicle engine control means. 3,548,685, 12-22-70, Cl. 74-858.

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Dittrich, Werner; and Kristen, Reiner, to Siemens Aktiengesellschaft. Brushless direct-current motor with galvanomagnetic control members. 3,548,223, 12-15-70, Cl. 310-10.

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Dittrich, William A., to United States of America, Army. Laser exciter system. 3,518,570, 6-30-70, Cl. 331-94.5

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Ditzer, Joseph Roman, Jr.; and Spangler, Fred Walter, to Eastman Kodak Company. Color image transfer prints for viewing by either reflected or transmitted light. 3,492,925, 2-3-70, Cl. 95-1.

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Dixon, Charles E., to Collins Radio Company. Noise immune muting circuit for pulse counting detectors. 3,546,607, 12-8-70, Cl. 329-126.

Dixon, David A., to Occidental Petroleum Corporation, mesne. Apparatus for controlled admission of air to controlled atmosphere. 3,487,769, 1-6-70, Cl. 99-271.

Dixon, Don P. Automobile air conditioning system. 3,494,413, 2-10-70, Cl. 165-43.

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Dixon, Keith H.; and Denis Thomas Richard, to Eastman Kodak Company. Photographic printer operations responsive to a negative mask. 3,488,119, 1-6-70, Cl. 355-74.

Dixon, Leroy. Walking aid. 3,524,456, 8-18-70, Cl. 135-45.

Dixon, Norman E.; and Coleman, William J., to United States of America, Atomic Energy Commission. Lithium sulphate ultrasonic transducer. 3,546,012, 12-8-70, Cl. 117-213.

Dixon, Paul H., to Dixon Automatic Tool, Inc. Machine for orienting workpieces. 3,517,795, 6-30-70, Cl. 198-33.

Dixon, Paul H.; and Zilka, Jerry M., to Dixon Automatic Tool, Inc. Facsimile recorder. 3,546,707, 12-8-70, Cl. 346-74.

Dixon, Peter R.; and Coppock, Alden D. Dry cleaning process. 3,512,923, 5-19-70, Cl. 8-142.

Dixon, Richard T. Method and apparatus to control water solids in boilers. 3,512,507, 5-19-70, Cl. 122-382.

Dixon, Richard W.; and Pinnow, Douglas A., to Bell Telephone Laboratories, Incorporated. Iodic acid acousto-optic devices. 3,529,886, 9-22-70, Cl. 350-161.

Dixon, Robert J.: *See—*
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Dixon, Robert P., to General Electric Company. Noise clamping circuit for F.S.K. receiver. 3,497,812, 2-24-70, Cl. 325-320.

Dixon, Robert P., to General Electric Company. F.S.K. zero crossing detector. 3,506,924, 4-14-70, Cl. 329-104.

Dixon, Rolland E.; and Hutto, John F., to Phillips Petroleum Company. Conversion of propylene to isoamylene. 3,544,649, 12-1-70, Cl. 260-683.

Dixon, T. H., & Company Limited: *See—*
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Dlougy, Valenin Vladimirovich; and Kubbo, Voldemar Arnoldovich. Dehydrator for mineral bulk materials. 3,493,111, 2-3-70, Cl. 210-97.

Dlouhy, John A.; Reynolds, William E.; and Balla, John, said Reynolds and said Balla assor to IIT Research Institute. Method for automatically cutting hair. 3,536,079, 10-27-70, Cl. 132-7.

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Doane, De Witt H., to Cockle Ventilator Company, Inc. Damper mechanism for kitchen ventilating systems. 3,521,548, 7-21-70, Cl. 98-115.

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Dobarganes, Oscar; and Mendez, Francisco. Connector joint for a horizontal frame and vertical frame support. 3,539,211, 11-10-70, Cl. 287-189.36

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Dobbins, Hugh L. Visual distress signaling system. 3,493,924, 2-3-70, Cl. 340-54.

Dobbs, Frank G., to Fran-Stef Corporation. Pocketbook. 3,543,825, 12-1-70, Cl. 150-35.

Dobbs, Frank G.; and Dobbs, Stephan H. Lighter and lighterhousing. 3,498,733, 3-3-70, Cl. 431-124.

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Dobinson, Frank, to Monsanto Company. Yttrium compounds as catalysts in the production of polyesters. 3,523,104, 8-4-70, Cl. 260-75.

Dobkin, Robert C., to General Electric Company. Transducer with variable permeability magnetic member. 3,517,227, 6-23-70, Cl. 310-10.

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Dobmeier, James E.; and Zimmerman, Jack C., to Corning Glass Works. Flexibility testing. 3,534,593, 10-20-70, Cl. 73-100.

Dobner, Reinhold; Gross, Gunther; and Wenz, Herbert, to Pfaff, G. M., AG. Arrangement for guiding the direction of feed material on sewing machines. 3,495,558, 2-17-70, Cl. 112-211.

Dobo, Emerick J.; Kim, Dong W.; and Mallonee, William C., to Monsanto Company. Process for producing a nylon non-woven fabric. 3,542,615, 11-24-70, Cl. 156-181.

Dobrash, Slavko M.; and Vincent, William R., to General Motors Corporation. Nickel plating process. 3,535,212, 10-20-70, Cl. 204-29.

Dobrash, Slavko M.: *See—*
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Dobres, Amalie B.: *See—*
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Dobrikin, Harold L., to Berg Mfg. & Sales Co. Impulse brake system. 3,497,267, 2-24-70, Cl. 303-7.

Dobrikin, Harold L., to Berg Mfg. & Sales Co. Trailer brake fill system. 3,497,268, 2-24-70, Cl. 303-7.

Dobrikin, Harold L., to Berg Mfg. & Sales Co. Valve housing with alternate bracket entry. 3,520,315, 7-14-70, Cl. 137-68.

Dobrikin, Harold L., to Berg Mfg. & Sales Co. Double throw switch. 3,529,107, 9-15-70, Cl. 200-83.

Dobrikin, Harold L., to Berg Mfg. & Sales Co. Brake system safety indicator. 3,529,288, 9-15-70, Cl. 340-60.

Dobrikin, Harold L.; and Klimek, Boleslaw, to Berg Mfg. & Sales Co. Brake actuator and overtravel assembly. 3,502,003, 3-24-70, Cl. 92-63.

Dobrikin, Harold L.; and Klimek, Boleslaw, to Berg Mfg. & Sales Co. Piston relay valve. 3,512,552, 5-19-70, Cl. 137-627.5

Dobrinen, Jacob A., 1/5 to Miller, Gustave. Melon ball cutting machine. 3,519,050, 7-7-70, Cl. 146-106.

Dobrosielski, Stephen S.: *See—*
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Dobrzynski, Robert E.: *See—*
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Dobson, Harold R., to General Dynamics Corporation. Engine testing system. 3,514,995, 6-2-70, Cl. 73-117.2

Dobson, Peter V. Trucks. 3,544,127, 12-1-70, Cl. 280-43.17

Dobson, Richard L.; Jacob, Stanley W.; and Herschler, Robert J., to Crown Zellerbach Corporation, mesne. Dimethyl sulfoxide-enhanced astringent aluminum, zinc or zirconium antiperspirant salt cosmetics. 3,499,961, 3-10-70, Cl. 424-68.

Dobson, Richard N.; and Bexon, Howard J., to Dominion Foundries and Steel Limited. Load restraining system for vehicles. 3,508,764, 4-28-70, Cl. 280-179.

Dobson, Thomas A.; and Davis, Martin A., to American Home Products Corporation. 10,5-(Iminomethano)-10,11-dihydro-5H-dibenzo [a,d]cyclohepten-13-one and derivatives. 3,491,088, 1-20-70, Cl. 260-239.3

Dobson, Thomas A.; and Davis, Martin A., to American Home Products Corporation. 10,5-(Iminomethano)-10,11-dihydro-5H-dibenzo,[a,d] cyclohepten-13-one and related compounds. 3,493,560, 2-3-70, Cl. 260-239.3

Dobson, Thomas A.; and Davis, Martin A., to American Home Products Corporation. 10,5-(Iminomethano)-10,11-dihydro-5H-dibenzo [a,d]-cycloheptene and derivatives. 3,509,158, 4-28-70, Cl. 260-287.

Dobson, Thomas A.; and Davis, Martin A., to American Home Products Corporation. Basically substituted 10,5-(epoxymethano)-10,11- dihydro-5H-dibenzo[a,d]cyclohepten-13-ones. 3,518,263, 6-30-70, Cl. 260-247.2

Dobson, Thomas A.; and Davis, Martin A., to American Home Products Corporation. Basically substituted 10,5-(epoxymethano)-10,11- dihydro-5H-dibenzo[a,d]cycloheptenes. 3,535,340, 10-20-70, Cl. 260-333.

Dobson, Thomas A.; and Davis, Martin A., to American Home Products Corporation. 10,11-Dihydro-5,10-(iminomethano)-5H-dibenzo [a, d]cyclohepten-13-imine. 3,542,787, 11-24-70, Cl. 260-286.

Dobson, Thomas A.: *See—*
Davis, Martin A.; and Dobson, Thomas A.,3,509,134.
Davis, Martin A.; and Dobson, Thomas A.,3,539,557.

Dobson, W. E. & F., Limited: *See—*
Mc Luckie, Alexander Dalrymple, 3,548,601.
Town, Frank, 3,521,455.

Dobson, Weldon E., to AAI Corporation. Radar system including altitude layer selector. 3,525,994, 8-25-70, Cl. 343-11.

Dochterman, Richard W., to General Electric Company. Noise excitation suppression motor mounting system. 3,500,083, 3-10-70, Cl. 310-51.

Dock, Mortimer Russell. Cigarettes. 3,547,131, 12-15-70, Cl. 131-9.

Dock, Mortimer Russell. Filter for a smoking device. 3,547,134, 12-15-70, Cl. 131-261.

Docker, Leslie Thomas, to Slumberland Group Limited. Apparatus for use in the manufacture of mattresses and the like articles. 3,490,061, 1-13-70, Cl. 112-3.

Dockerty, Stuart M.: *See—*
Cortright, Stanley A.; Dockerty, Stuart M.; Overman, Kenneth T.; Pardue, William F., Jr.; and Shay, George C.,3,519,411.

Dockery, Calvin D., to Phillips Petroleum Company. Parison severing means having blade with sharp edge and offset top surface. 3,520,010, 7-14-70, Cl. 18-5.

Dockery, Calvin D., to Phillips Petroleum Company. Shearing ring for split mold thermoforming. 3,548,459, 12-22-70, Cl. 18-19.

Docter, Charles J. Tire plugger. 3,545,314, 12-8-70, Cl. 81-15.7

Doctoroff, Michael, to Whittaker Corporation, mesne. Collimated duoplasmatron-powered deposition apparatus. 3,494,852, 2-10-70, Cl. 204-298.

Doda, Margit: *See—*
Nador, Karoly; Kraiss, Gabor; Gyorgy, Lajos; Molnar, Jeno; Doda, Margit; Galambos, Eva; and Pfeifer, Klara,3,530,137.

Doda, Robert J.: *See—*
Dooley, Harry H.; Doda, Robert J.; and Mahon, Arthur F.,3,491,246.

Dodd, Marcus W.: *See—*
Nestler, Richard F.; Dodd, Marcus W.; and May, Donald B.,3,513,755.

Dodd, Paul L.; Peterman, Charles P.; and Petersen, William H., to Shell Oil Company. Marine conductor pipe connecting method. 3,503,442, 3-31-70, Cl. 166-0.5

Dodd, Paul L.: *See—*
Peterman, Charles P.; and Dodd, Paul L.,3,513,909.

Dodd, Robert E.: *See—*
Zbinden, James; and Dodd, Robert E.,3,523,053.

Dodds, Billy J.: *See—*
Mitchell, Robert W.; and Dodds, Billy J.,3,514,219.

Dodds, Donald J., to Foundation Sciences, Inc. Bearing pad and method of preparing. 3,521,454, 7-21-70, Cl. 61-45.

Dodds, Kay E.; and Yee, Ying S., to Eastman Kodak Company. Color responsive apparatus. 3,551,058, 12-29-70, Cl. 356-177.

Dodds, Lowell T.: *See—*
Menzl, Roland L.; Schuessler, Frederick W.; and Dodds, Lowell T.,3,501,399.

Dodds, Robert E., to Sylvania Electric Products, Inc. Method of preparing soluble iron polytungstate, and product thereof. 3,516,784, 6-23-70, Cl. 23-51.

Dodds, Thomas J., Jr.: *See—*
Lasoff, Murry; Holmes, Irwin R.; and Dodds, Thomas J., Jr.,3,505,665.

Doddson, Ora E. Marble decor door. 3,488,874, 1-13-70, Cl. 40-125.

Dodge, Alexander. Hydraulic pressure measuring system. 3,492,859, 2-3-70, Cl. 73-88.

Dodge, Edward W.; and Roumbanis, Theodore, to Varian Associates. Broadband waveguide transition for a centipede slow wave circuit and tubes using same. 3,532,925, 10-6-70, Cl. 315-3.5

Dodge, Gerald F., III; and True, Howard D. F., Jr., to General Electric Company. Icemaker with improved ice storage receptacle. 3,514,964, 6-2-70, Cl. 62-137.

Dodge, Harry G.: *See—*
Zahuranec, Emery J.; Beck, Edward; Dodge, Harry G.; and Bedo, Alfred,3,537,341.

Dodge, Marlow W.: *See—*
Johnson, Arthur L., Jr.; and Dodge, Marlow W.,3,545,475.

Dodge, Robert J.; and Tindle, Ernest R., to Automatic Power, Inc. Energy control for flashing visual signals. 3,541,388, 11-17-70, Cl. 315-238.

Dodington, Sven H.; de Faymoreau, Etienne C. L.; Parker, Ernest G.; and Whitefield, James-T., to International Telephone and Telegraph Corporation. Miniature antenna for beacons. 3,541,562, 11-17-70, Cl. 343-760.

Dodson, Donald E.; and Smith, John E., to McGraw-Edison Company. Elongated sectionalizing switch. 3,522,397, 7-28-70, Cl. 200-78.

Dodson, Marshall A.; and Flair, Henry J., to Illinois Tool Works Inc. Process for granulating sheet-like material. 3,529,777, 9-22-70, Cl. 241-18.

Dodson, Michael; and Mehaffy, Gordon E., to Beckman Instruments, Inc. Sampling valve. 3,521,674, 7-28-70, Cl. 137-625.48

Dodson, Richard J., to Clayton Mark & Company. Method of treating welded tubing. 3,520,165, 7-14-70, Cl. 72-64.

Dodson, Stanley C.: *See—*
Groszek, Aleksander; Bell, Geoffrey Hairsine; and Dodson, Stanley C.,3,518,191.
Cairns, Roger John Russell; and Dodson, Stanley Charles,3,518,192.

Dodson, Stanley Charles; and Cairns, Roger John Russell, to British Petroleum Company Limited, The. Oleophilic graphite and heavy metal sulphides. 3,525,692, 8-25-70, Cl. 252-29.

Dodwell, John M.: *See—*
Schell, Sidney L., 3,542,181.

Doe, Cedric Alfred Friend; and Russo, Judith Valerie Benoliel, to Lyons, J., & Company Limited. Flour treatment process. 3,490,917, 1-20-70, Cl. 99-93.

Doebel, Karl J.; and Francis, John E., to Geigy Chemical Corporation. Derivatives of 1,2,8,9-tetraazaphenalenes. 3,535,320, 10-20-70, Cl. 260-250.

Doebel, Karl J.; and Francis, John E., to Geigy Chemical Corporation. 8-Carboxy-1(2H) phthalazinones. 3,539,567, 11-10-70, Cl. 260-250.

Doebel, Karl J.; and Francis, John E., to Geigy Chemical Corporation. 3-Hydroxy-7-aldehydophthalides. 3,539,594, 11-10-70, Cl. 260-343.3

Doebel, Karl J.; and Frans, John E., to Geigy Chemical Corporation. 2,6-(α,α-Dibromomethyl)benzoic acid derivatives. 3,524,878, 8-18-70, Cl. 260-515.

Doebel, Karl J.; and Gagneux, Andre R., to Geigy Chemical Corporation. Process for producing anti-inflammatory effects and compositions. 3,488,423, 1-6-70, Cl. 424-273.

Doebel, Karl J.; and Gagneux, Andre R., to Geigy Chemical Corporation. Certain substituted 2-mercapto-imidazole derivatives. 3,505,350, 4-7-70, Cl. 260-309.

Doebel, Karl J.; and Gruenfeld, Norbert, to Geigy Chemical Corporation. Pyridyl-2-imidazolone derivatives. 3,542,798, 11-24-70, Cl. 260-295.

Doebel, Karl J.; and Wasley, Jan W. F., to Geigy Chemical Corporation. 2-Methyl-3-p-halobenzoyl indole-N-aliphatic acids. 3,505,354, 4-7-70, Cl. 260-326.13

Doede, John H.: *See—*
Vonderohe, Robert H.; Doede, John H.; and Lindenmeyer, Carl W.,3,515,486.

Doedens, James D.: *See—*
Rosenbrock, Earl H.; and Doedens, James D.,3,510,445.

Doehner, Gunther Anthony. Apparatus and method for producing photographic records of distribution pattern of radioactive isotopes in the human body. 3,509,339, 4-28-70, Cl. 250-65.

Doehner, Gunther Anthony. Fluorescent lamps constructed for use in conventional light fixtures. 3,551,736, 12-29-70, Cl. 315-100.

Doehnert, Donald F.: *See—*
Crocker, Guy J.; and Doehnert, Donald F.,3,551,391.

Doell, Howard J., to Gubelin International Corporation, mesne. Combined stirrer, pump, and holder device for dyeing operations. 3,534,569, 10-20-70, Cl. 68-165.

Doeller, Wilhelm: *See—*
Baron, Heinrich; Kath, Joachim; and Doeller, Wilhelm,3,536,730.

Doelp, Louis C., Jr.; Kreider, Eugene R.; and Macarus, David P., to Air Products and Chemicals, Inc. Pyrolysis gasoline hydrogenation. 3,498,907, 3-3-70, Cl. 208-57.

Doepker, Francis Bernard, to Doepker Industries Limited. Wide-span implements having articulated frames. 3,491,836, 1-27-70, Cl. 172-311.

Doepker Industries Limited: *See—*
Doepker, Francis Bernard, 3,491,836.

Doerfel, Helmut: *See—*
Kunde, Joachim; Wilhelm, Hans; Doerfel, Helmut; and Rauch, Konrad,3,496,144.
Raff, Paul; Schuster, Ludwig; Becht, Guenter; and Doerfel, Helmut,3,505,402.

Doerfer Corporation: *See—*
Neebel, Richard R.; Harms, Clarence L.; Neebel, James D.; and Doerfer, Richard E., 3,546,737.

Doerfer, Richard E.: *See—*
Glidden, Robert L.; Fulper, John H.; and Doerfer, Richard E.,3,524,595.
Harms, Clarence L.; and Doerfer, Richard E.,3,497,240.
Neebel, Richard R.; Harms, Clarence L.; Neebel, James D.; and Doerfer, Richard E.,3,546,737.

Doerfler, Richard L.; and Nill, John J., to Clement, J. W., Company. Two-on Siamese twin books separator, trimmer, and resequencing process and apparatus. 3,496,816, 2-24-70, Cl. 83-39.

Doerfler, Roger E., to Hydrasearch Co., Inc. Impulse check valve. 3,493,270, 2-3-70, Cl. 303-6.

Doerge, Herman P.: *See—*
Wismer, Marco; Doerge, Herman P.; and Mosso, Paul R.,3,511,825.

Doerges, Alexander: *See—*
Hochgesand, Gerhard; Heidl, Hellmut; Unland, Herbert; Doerges, Alexander; and Bratzler, Karl,3,505,784.

Doering, Clarence M.; and Seni, Leonard S., to Texaco Inc. Method of manufacturing and use of combustible insert sleeves in the body of solid fuel heaters. 3,495,924, 2-17-70, Cl. 431-291.

Doering, George I., to Industrial Nucleonics Corporation. Spectrum analyzer. 3,529,140, 9-15-70, Cl. 235-151.31

Doering, John P., Jr., to Beckman Instruments, Inc. Terminal construction for electrical circuit element. 3,536,821, 10-27-70, Cl. 174-68.5

Doering, John P., Jr.; and Brant, Roy G., to Beckman Instruments, Inc. Rotor assembly for integral electrical switch. 3,518,389, 6-30-70, Cl. 200-166.

Doering, John Peter, Jr.: *See—*
Hall, Lloyd E.; Brant, Roy Gene; and Doering, John Peter, Jr.,3,500,290.

Doeringsfeld, Karl H.; and Osen, Ralph T., to Honeywell Inc. Control apparatus. 3,494,376, 2-10-70, Cl. 137-624.14

Doggart, John; Skelton, Harry Leslie; Lawton, Geoffrey Roy; and Lomas, James Ronald, to Frido Limited. Doll with asymmetrically located arm and/or leg joint sockets. 3,537,209, 11-3-70, Cl. 46-161.

Dogget, George A.: *See—*
Krause, Harold R.; Dogget, George A.; and Zimmerman, Robert B.,3,499,227.

Doggett, Frederick F.: *See—*
Krackhardt, Elliott M.; and Doggett, Frederick F.,3,534,208.

Doggett, Robert E. Vehicle counter. 3,519,803, 7-7-70, Cl. 235-99.

Doggett, William N.; and Suppes, Duane A., to Phillips Petroleum Company. Impedance measuring alternating current bridge having an automatically adjustable frequency oscillator. 3,522,529, 8-4-70, Cl. 324-57.

Dogliotti, Amilcare, to Ferrero, P., & C. S.p.A. Container for packaging items for individual removal. 3,529,761, 9-22-70, Cl. 229-28.

Dohanich, George J., Jr.: *See—*
Carnevale, Richard J.; Curran, John E.; Dohanich, George J., Jr.; O'Donnell, John F.; Speer, William H.; Trudgen, Gary A.; and Wallace, Leonard J.,3,548,178.

Doherty, Alfred E., Jr.; and Knop, Louis H., to Aerojet-General Corporation. Method for joining metallic tubes by explosive bonding. 3,535,767, 10-27-70, Cl. 29-470.1

Doherty, Francis W.: *See—*
Iwasyk, John M.; and Doherty, Francis W.,3,530,079.

Doherty, James J., to Fairchild Camera and Instrument Corporation. Dual focal plane microscope. 3,488,104, 1-6-70, Cl. 350-81.

Doherty, Martin C., to General Electric Company. Variable gain fluidic device. 3,500,847, 3-17-70, Cl. 137-81.5

Doherty, Martin C., to General Electric Company. Fluidic frequency-responsive lag circuit component. 3,534,757, 10-20-70, Cl. 137-81.5

Doherty, Paul R.: *See—*
Wenckus, Joseph F.; and Doherty, Paul R.,3,511,614.

Dohi, Tadahiro; Yu, Taneyoshi; and Hiraoka, Kohi, to Otsuka Pharmaceutical Co., Ltd. Optically active salt complexes of carnitine nitrile hydroxide and N-acryl glutamic acids and their preparation. 3,488,379, 1-6-70, Cl. 260-465.4

Dohle, Rolf Werner: *See—*
Wurzer, Joachim Franz; Dohle, Rolf Werner; and Zaja, Wolfgang Werner,3,549,267.

Dohler, David E.; and Hardin, William W., to International Business Machines Corporation. Character recognition system. 3,506,963, 4-14-70, Cl. 340-146.3

Dohmeier, Arnold. Apparatus for forming and filling bags. 3,492,783, 2-3-70, Cl. 53-186.

Dohmeier, Arnold. Continuous envelopes. 3,501,085, 3-17-70, Cl. 229-69.

Dohmeier, Hans O. Cable attachments. 3,490,106, 1-20-70, Cl. 24-123.

Dohmen, Hubert G., to General Motors Corporation. Silicon crystal growing. 3,511,610, 5-12-70, Cl. 23-273.

Dohnalek, Rudolf: *See—*
Cap, Miroslav; Cizinsky, Zdenek; Dohnalek, Rudolf; Chvojka, Jiri; and Karkoska, Vitezslav,3,515,521.

Dohogne, Charles L.; and Harrington, James C., to Purex Corporation Ltd. Cleaning method for jet engine parts. 3,546,084, 12-8-70, Cl. 204-141.

Dohogne, James R.; and Kelly, Doyle J., Sr., to King Radio Corporation. Navigational instrument for dirigible craft. 3,500,413, 3-10-70, Cl. 343-107.

Dohr, Donald R., to Singer Company, The. Magnetized sewing needles. 3,513,793, 5-26-70, Cl. 112-222.

Dohr, Edmund: *See—*
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Dohr, Manfred; Weinrich, Erwin; and Budnowski, Manfred, to Henkel & Cie, G.m.b.H. Process for the preparation of internally plasticized epoxide resins using a polycarboxylic acid anhydride mixture. 3,496,140, 2-17-70, Cl. 260-47.

Dohr, Manfred: *See—*
Jakobi, Gunter; Dohr, Manfred; and Gotte, Ernst,3,499,841.

Dohring, Howard R.; and Trimble, Philip K., to General Motors Corporation. Machine tool feed control. 3,487,730, 1-6-70, Cl. 77-32.1

Dohrman, Charles A. Retractable folding steps. 3,545,567, 12-8-70, Cl. 182-97.

Doi, Alfred K. Process for preserving plant material in a fresh state. 3,522,060, 7-28-70, Cl. 99-154.

Doi, Hiroshi: *See—*
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Doi, Juro: *See—*
Yamada, Kazuyoshi; and Doi, Juro,3,509,843.
Yamada, Kazuyoshi; and Doi, Juro,3,527,185.

Doi, Kaname, to Sumitomo Electric Industries, Ltd. Induction switch with adjustment means for independently selecting the clockwise and counter- clockwise angular velocities of actuation. 3,527,905, 9-8-70, Cl. 200-61.46

Doi, Toshio: *See—*
Katagiri, Shinjiro; Ozasa, Susumu; Kimura, Hirokazu; Doi, Toshio; and Kimura, Hiroshi,3,500,269.
Kudo, Mitsuhiro; and Doi, Toshio,3,534,459.

Doi, Yoshihiko: *See—*
Kubota, Haruo; Ishida, Ryuichi; Doi, Yoshihiko; and Nisikawa, Takeshi,3,503,692.

Doidge, William A.: *See—*
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Doiron, Joseph G. Self-threading needle. 3,531,030, 9-29-70, Cl. 223-102.

Dokes, George E.: *See—*
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Dokos, Sophocles J., to Sunbeam Corporation. Temperature responsive control means. 3,515,856, 6-2-70, Cl. 219-493.

Dokos, Sophocles J., to Sunbeam Corporation. Cordless portable electric appliance. 3,533,119, 10-13-70, Cl. 15-22.

Dokos, Sophocles J.; Wickenberg, Chester H.; Swanson, Charles E.; and Gasparaitis, Bernardas, to Sunbeam Corporation. Electric toaster. 3,533,350, 10-13-70, Cl. 99-329.

Dokoupil, Jiri; and Zubik, Jiri. Process and arrangement for drainage of wet leather and similar fibrous material. 3,525,160, 8-25-70, Cl. 34-6.

Dokoupil, Jiri; Zubik, Jiri; and Zdrahal, Jiri, to Svit, narodni podnik, mesne. Method and apparatus for treating leather. 3,545,095, 12-8-70, Cl. 34-14.

Dokter, Henry J.: *See—*
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Dokuzoguz, Halit Z.: *See—*
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Dolan, Courtney F., to Chrysler Corporation. Transmission control device. 3,529,487, 9-22-70, Cl. 74-477.

Dolan, Francis D.; and Burgoon, Jack L., to Scott & Fetzer Company, The, mesne. Vacuum cleaner. 3,491,399, 1-27-70, Cl. 15-351.

Dolan, Francis D.; and Burgoon, Jack L., to Scott & Fetzer Company, The, mesne. Apparatus for cleaning floors. 3,550,181, 12-29-70, Cl. 15-320.

Dolan, James J.: *See—*
Hutchinson, Thomas J.; and Dolan, James J.,3,519,339.

Dolan, Robert N. Trousers associated ground engaging improved support for seat engagement by wearer. 3,538,512, 11-10-70, Cl. 2-227.

Dolarmore, Charles D., to Lorain Products Corporation. Telephone interruption switching circuitry. 3,536,852, 10-27-70, Cl. 179-84.

Dolata, Hans: *See—*
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Dolbeare, Edwin F.: *See—*
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Dolbec, Albert C., to General Electric Company. Static exciter field suppressor. 3,549,981, 12-22-70, Cl. 322-25.

Dolberg, Nathan: *See—*
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Dolby, Patrick W.: *See—*
Anderson, Robert E.; Dolby, Patrick W.; and Bohnenblust, Clarence E.,3,488,580.

Dolce, Thomas J.; and McCabe, Donald L., to Celanese Corporation. Transparencies for electrostatic copying consisting of polyester sheets coated with a polyamide. 3,535,112, 10-20-70, Cl. 96-1.4

Dolce, Thomas J.; and McCabe, Donald L., to Celanese Corporation. Transparencies for electrostatic copying consisting of polyester sheets coated with vinylidene chloride copolymers. 3,539,340, 11-10-70, Cl. 96-1.4

Dolce, Thomas J.; and McCabe, Donald L., to Celanese Corporation. Transparency comprising polyester sheet coated with organotitanium compound. 3,539,341, 11-10-70, Cl. 96-1.4

Dolce, Thomas J.; and McCabe, Donald L., to Celanese Corporation. Aqueous coating compositions comprising a vinylidene chloride terpolymer, gelatin, and a copolymer of ethylene and vinyl acetate. 3,539,476, 11-10-70, Cl. 260-8.

Dold, Edward L.: *See—*
Malloy, George L.; and Dold, Edward L.,3,516,514.

Dold, Otto: *See—*
Berger, Herbert; Dold, Otto; Kruger, Dietrich; Stach, Kurt; Schmidt, Felix Helmut; and Stork, Harald,3,496,066.

Dold, Otto; Stach, Kurt; and Schaumann, Wolfgang, to Boehringer, C. F., & Soehne G.m.b.H. 3-Phenyl-granatene-(2)-derivatives. 3,509,161, 4-28-70, Cl. 260-293.

Dolder, Guido, to Escher Wyss Limited. Downstream aerated gate sluice. 3,518,832, 7-7-70, Cl. 61-28.

Dole Valve Company, The: *See—*
Bauerlein, Carl C., 3,529,430.
Dolter, Paul A.; and Pinkerton, Neil C., 3,537,104.
Fathauer, George H., 3,494,437.
Fathauer, George H., 3,534,355.
Jones, William H., 3,496,380.
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McCarty, William Raymond, Jr.; and Hanna, John W., 3,540,039.
Schaff, Paul W.; and Kolze, Lawrence A., 3,525,833.
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Dolegowski, Arthur R.: *See—*
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Doleman, Jack; and Hills, William H., to Monsanto Company. Continuous molding of thermoplastic materials. 3,507,010, 4-21-70, Cl. 18-21.

Dolenc, Anton, to Sulzer Brothers Limited. Indexing piston for an internal combustion engine. 3,500,724, 3-17-70, Cl. 92-31.

Dolenc, Anton, to Sulzer Brothers Limited. Diesel electric locomotive. 3,541,344, 11-17-70, Cl. 307-43.

Dolezal, Premysl Thomas: *See—*
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Dolezel, Milan: *See—*
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Dolgen, Igor E.: *See—*
de Mey, Charles F., II; and Dolgen, Igor E.,3,501,242.

Dolgopolov, Nifont Nikolaevich. Electric separator for the separation of loose materials according to their size and composition. 3,511,366, 5-12-70, Cl. 209-12.

Dolgorukov, Gregory S. T-square. 3,526,039, 9-1-70, Cl. 33-112.

Dolker, Veit: *See—*
Reymann, Wolfgang; Dolker, Veit; and Linier, Gerhard,3,495,723.

Doll, Brendan L. Corner pad and blank. 3,511,464, 5-12-70, Cl. 248-345.1

Doll, Edward Joseph, to Du Pont de Nemours, E. I., and Company. Method for removing ammonia and water from unpolymerized chloroprene stripped from neoprene latex. 3,541,071, 11-17-70, Cl. 260-92.3

Doll, Henri-Georges, to Schlumberger Technology Corporation. Methods and apparatus for investigating earth formations wherein the vertical means is altered to approximate the vertical resolution of a second exploring means. 3,493,849, 2-3-70, Cl. 324-1.

Doll, Jean Henri; and Druesne, Henri Desire, to Societe des Accumulateurs Fixes et de Traction (Societe Anonyme). Method for applying spacing means between electrodes of electric power sources. 3,515,596, 6-2-70, Cl. 136-175.

Doll, Jean Henri; and Druesne, Henri Desire, to Societe des Accumulateurs Fixes et de Traction (Societe Anonyme). Composite separator means for electrochemical power sources and power sources embodying them. 3,537,908, 11-3-70, Cl. 136-145.

Doll, Justin; Fidos, Henryk; Forkel, Dirk; and Schreiner, Horst, to Siemens Aktiengesellschaft. Method of making stator core by casting gray iron around lamination stack. 3,524,493, 8-18-70, Cl. 164-109.

Dollase, William R., to Case, J. I., Company. Draft control linkage. 3,527,305, 9-8-70, Cl. 172-9.

Dollet, Jean, to Societe des Forges et Ateliers du Creusot. High-sensitivity creep detector. 3,521,477, 7-21-70, Cl. 73-15.6

Dollfus-Mieg & Cie: *See—*
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Dollhopf, Franz L., to Shandon Electric Company Limited. Microtome freezing attachment. 3,495,490, 2-17-70, Cl. 83-171.

Dolling, Gerald: *See—*
Cowley, Roger A.; Dolling, Gerald; Cochran, William W.; Pawley, Godfrey S.; and Lefkowitz, Issai,3,514,677.

Dollinger Corporation: *See—*
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Tarala, Frederick E., 3,513,643.

Dollinger, Robert E.; and Kallenberger, Robert H., to Phillips Petroleum Company. Phase separation. 3,521,428, 7-21-70, Cl. 55-96.

Dollinger, Robert E.: *See—*
Kallenberger, Robert H.; Dollinger, Robert E.; Byron, John W.; and Henderson, Eulas W.,3,548,454.

Dollison, William W. Subsurface safety valve with operator. 3,491,831, 1-27-70, Cl. 166-72.

Dollison, William W., to Otis Engineering Corporation. Method of installing a well head system. 3,494,421, 2-10-70, Cl. 166-315.

Dollison, William W., to Otis Engineering Corporation. Well tools. 3,543,793, 12-1-70, Cl. 137-614.2

Dollman, David Y., to Amchem Products, Inc. Method and compositions for treating aluminum surfaces. 3,549,540, 12-22-70, Cl. 252-105.

Dolly Toy Co., The: *See—*
Holtvoigt, John H., 3,518,786.

Dolney, Joseph J.; and Kuhar, Ludwig J., to Singer Company, The. Pressure foot for sewing a coil type zipper stringer. 3,547,059, 12-15-70, Cl. 112-151.

Dolney, Joseph J.: *See—*
Kuhar, Ludwig J.; and Dolney, Joseph J.,3,530,811.

Dolomitwerke GmbH: *See—*
Wuhrer, Josef; Bischoff, Friedrich; and Richrath, Herbert, 3,497,581.

Dolomont, Allan A., to Olin Corporation. Method of making nonporous weld beads. 3,519,779, 7-7-70, Cl. 219-74.

Dolphin, Lambert T., Jr.: *See—*
Wickersham, Arthur F., Jr.; and Dolphin, Lambert T., Jr.,3,500,208.
Wickersham, Arthur F., Jr.; and Dolphin, Lambert T., Jr.,3,515,935.

Dolsen, Philip C.: *See—*
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Doltac Company: *See—*
Leibowitz, William; DeLise, Frank; Gardel, Robert; and Gorsky, Egon, 3,530,616.

Dolter, Paul A., to Eaton Yale & Towne, Inc. Plunger-type sound level adjustable buzzer. 3,522,601, 8-4-70, Cl. 340-392.

Dolter, Paul A.; and Pinkerton, Neil C., to Dole Valve Company, The. Non-adjustable encapsulated buzzer. 3,537,104, 10-27-70, Cl. 340-384.

Dolter, Paul A.: *See—*
Hanna, John W.; McCarty, William R., Jr.; and Dolter, Paul A.,3,518,667.

Doman, Robert C.: *See—*
Alper, Allen M.; Doman, Robert C.; and McNally, Robert N.,3,540,899.

Domann, Helmut; and Gunsser, Peter, to Bosch, Robert G.m.b.H. Control arrangement for electric motors having a power circuit including a thyristor. 3,500,161, 3-10-70, Cl. 318-308.

Domann, Helmut; and Gunsser, Peter, to Bosch, Robert, G.m.b.H. Frequency control circuit for an A-C generator driven by a prime mover having adjustable fuel supply. 3,513,324, 5-19-70, Cl. 290-40.

Domashovetz, Volodymyr, to Remco Industries, Inc. System and balancing kit for mobile toys. 3,518,789, 7-7-70, Cl. 46-202.

Domba, Elemer; and Krolikiewicz, Thaddeus A., to Nalco Chemical Company. Hexafluoroisopropanol acrylamide. 3,549,705, 12-22-70, Cl. 260-561.

Dombeck, Edward K., to Bendix Corporation, The. Brake shoe bearing means. 3,548,976, 12-22-70, Cl. 188-78.

Dombro, Robert A., to Universal Oil Products Company. Preparation of thiolcarboxylates. 3,504,009, 3-31-70, Cl. 260-455.

Dombro, Robert A., to Universal Oil Products Company. Preparation of alcohols. 3,515,759, 6-2-70, Cl. 260-618.

Dombro, Robert A., to Universal Oil Products Company. Preparation of olefinic hydrocarbons. 3,527,830, 9-8-70, Cl. 260-677.

Dombro, Robert A.: *See—*
Schmerling, Louis; and Dombro, Robert A.,3,551,504.

Dombroski, Frank P., to American Cyanamid Company. Naphthylazo-α-hydroxy-naphthoic acid pigments. 3,520,870, 7-21-70, Cl. 260-195.

Dombrowski, Theodor, to Wilhelm Hegenscheidt Kommanditgesellschaft. Tool supporting assembly. 3,492,708, 2-3-70, Cl. 29-96.

Dombrowski, Theodor; and Luzina, Max, to Wilhelm Hegenscheidt Kommanditgesellschaft. Sensing apparatus for setting a tool for truing wheel. 3,518,914, 7-7-70, Cl. 82-8.

Dome, Robert B., to General Electric Company. Simplified FM ratio detector circuit. 3,505,610, 4-7-70, Cl. 329-129.

Domeika, Thomas C., to General Electric Company. Rolling mill descaling device. 3,518,736, 7-7-70, Cl. 29-81.

Domel, Edwin A.: *See—*
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Domenech, Fidele: *See—*
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Tosan, Roland Jean Dominique; Arsac, Aime Joseph; Domenech, Fidele; Bourguignon, Pierre Jules Emile; and Kienzle, Jean Andre Paul,3,511,826.

Domenichini, Carlo P.; and Terjenian, Leo, to Raytheon Company. Capacitive filter for suppression of spurious electrical radiation. 3,531,613, 9-29-70, Cl. 219-10.55

Domingues, Frank J., to Industrial-Medical Instruments, Inc. Pellet-type biopotential electrode with buffer disc. 3,496,929, 2-24-70, Cl. 128-2.06

Dominguez, Ezekiel C.: *See—*
Aubrey, William M.; Ketter, Richard P.; and Dominguez, Ezekiel C.,3,545,957.

Dominguez, Jose Hermida: *See—*
Benjumeda, Carlos; and Dominguez, Jose Hermida,3,524,500.

Dominick, Anthony J., Jr.: *See—*
Slemmons, John W.; and Dominick, Anthony J., Jr.,3,531,852.

Dominick, Charles J. Inspection knife. 3,513,542, 5-26-70, Cl. 30-123.

Dominick, Charles J. Inspection knife. 3,513,543, 5-26-70, Cl. 30-124.

Dominion Auto Accessories Limited: *See—*
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Dominion Engineering Works, Limited: *See—*
Eggins, Douglas Walter, 3,545,296.
Field, Michael Frank, 3,511,489.
Kanger, Feodor; and Desbaillets, Jacques Arthur, 3,489,391.
Nelson, John E., 3,497,142.
Truxa, Leslie, 3,535,204.

Dominion Foundries and Steel Limited: *See—*
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Dominion Magnesium Limited: *See—*
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Dominion Metalware Industries Limited: *See—*
Ross, Oakland K.; Knight, Robert F.; and Rachlinski, Stanley, 3,506,989.

Dominion Road Machinery Co., Limited, The: *See—*
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Dominitwerke Gesellschaft mit beschrankter Haftung: *See—*
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Domino Sugar Company: *See—*
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Domke, Klaus: *See—*
Buchner, Norbert; and Domke, Klaus,3,543,970.

Domning, Hans, to Wintershall Aktiengesellschaft. Crystallization method and device. 3,530,924, 9-29-70, Cl. 159-45.

Domoslawski, Henryk: *See—*
Illg, Zbigniew; Walczak, Wojciech; Zaluska, Jan; Szymanski, Czeslaw; Seremak, Edward; and Domoslawski, Henryk,3,543,396.

Domovs, Kelvin B.: *See—*
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Domres, Franklin W. Pulp cutting and loading machine. 3,519,042, 7-7-70, Cl. 144-3.

Domsa, Flavius N. Apparatus for the continuous treatment of sugar industry juices with carbon dioxide. 3,506,484, 4-14-70, Cl. 127-12.

Domtar Limited: *See—*
Gartaganis, Pheobus A.; and Rowley, Cecil A., 3,533,883.
Gilchrist, James Gordon, 3,533,549.
Hale, Edward C., 3,537,950.
Hale, Edward Chaloner; and Singer, Eva Yvonne, 3,525,664.
Hale, Edward Cholonor; and Kerekes, Peter Stephen, 3,526,559.
Lapointe, Joseph Andrew, 3,498,002.
LaPointe, Joseph Andrew, 3,526,259.
Ramshaw, Ronald H.; and Roberts, Douglas, 3,541,599.
Sherry, Cameron W., 3,495,997.
Stanoy, Mark; and Barnett, Georges J., 3,508,672.

Domyan, Frank Francis, to International Telephone and Telegraph Corporation. Tension spring supporting arrangement. 3,503,303, 3-31-70, Cl. 91-47.

Don, Gunther. Centering device for logs. 3,504,719, 4-7-70, Cl. 144-209.

Donadieu, Lucien: *See—*
Dammann, Claude; and Donadieu, Lucien,3,542,937.

Donaghy, Francis P., Sr.: *See—*
St. Jean, David J.; Donaghy, Francis P., Sr.; and Cavaliere, Louis P.,3,498,119.

Donaher, Charles J.; and Steranko, James J., to International Business Machines Corporation. Oscillatory probe system for contacting and testing a circuit point through a high density of wires. 3,500,192, 3-10-70, Cl. 324-72.5

Donahue, Daniel J.; and Hardy, Austin E., to RCA Corporation. Photographic method for making tri-colored cathode ray screen. 3,514,287, 5t26-70, Cl. 96-36.1

Donahue, Gary M., to Reynolds Metals Company. Protective cover means and blanks for making such cover means. 3,531,298, 9-29-70, Cl. 99-171.

Donahue, James L. Molten metal transfer system. 3,497,189, 2-24-70, Cl. 263-11.

Donahue, Leo O.; and Behrens, Roy E., to Graphic Engineers, Inc. Machine for stacking papers into stacks of predetermined count. 3,543,651, 12-1-70, Cl. 93-93.

Donahue, Simeon J.; and Kosowicz, Edward J., deceased (by Evans, John P.; executor), said Donahue assor. to American Chain & Cable Co. Switch assembly. 3,531,607, 9-29-70, Cl. 200-83.

Donakowski, Stephen P. Device for pulling skids. 3,512,755, 5-19-70, Cl. 254-8.

Donald, Alexander: *See—*
Bemiss, Robert P., 3,508,376.

Donald, Philip J., to RCA Corporation. Optical data selection and display. 3,504,609, 4-7-70, Cl. 95-4.5

Donaldson, Charles R.; and Yang, James S., to National Distillers and Chemical Corporation. Method for reducing tackiness of polymer pellets. 3,528,841, 9-15-70, Cl. 117-16.

Donaldson Company, Inc.: *See—*
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Monson, Donald R.; Keller, Darryl E.; and Rothman, James C., 3,517,821.

Donaldson, Desmond M., to Borg-Warner Corporation. Method of making a heat exchanger. 3,497,936, 3-3-70, Cl. 29-157.3

Donaldson, Fred A. Speed modifying and warning device for automobiles. 3,518,960, 7-7-70, Cl. 116-114.

Donaldson, George R.: *See—*
Berger, Charles V.; and Donaldson, George R.,3,538,173.
Pollitzer, Ernest L.; Donaldson, George R.; and Hawkins, Richard C.,3,551,510.

Donaldson, Malcolm MacFarland, to American Cyanamid Company. Process for making a polyalkoxy polymethylol- melamine compound of high purity utilizing an acid cationic exchange resin. 3,488,350, 1-6-70, Cl. 260-249.6

Donaldson, Ralph F.: *See—*
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Donaldson, Robert M.: *See—*
Flipse, John E.; Donaldson, Robert M.; Stevens, John L., Jr.; Mero, John L.; Deal, Joseph D., Jr.; Birrell, Norman D.; Oresko, Nicholas E.; Spencer, Luther E.; Graham, Alfred E.; Jones, Archer L.; Hirshman, Ira L.; Todd, Frederick S.; and Himes, William A.,3,522,670.

Donatelli, Jerry; and Greco, Joseph. Laser energized power plants. 3,495,406, 2-17-70, Cl. 60-108.

Donatello, James M.: *See—*
Walus, Aloysius N.; and Donatello, James M.,3,488,307.

Donath, Edwin W.; and Ernst, Otto A., to Alnor Instrument Company, division of Illinois Testing Laboratories, Inc. Taut band suspension assembly for galvanometers. 3,493,864, 2-3-70, Cl. 324-154.

Donath, Gerhard: *See—*
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Donath, Walter: *See—*
Schaeffler, Georg; and Donath, Walter,3,490,285.

Donati, Franco: *See—*
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Ullmann, Werner; and Donati, Franco,3,539,753.

Donato, Anthony J.; and Miller, Paul R., to Bell Telephone Laboratories, Incorporated. Controlled switch store for extending sampling time intervals. 3,540,009, 11-17-70, Cl. 340-173.

Donato, Anthony: *See—*
Neumann, Manfred; and Donato, Anthony,3,496,518.

Donavan, Patrick M., to Weiler Engineering, Inc. Foming apparatus. 3,512,388, 5-19-70, Cl. 72-225.

Donche, Alain; and Thibault, Claude, to Societe Nationale des Petroles d'Aquitaine. Process for the preparation of iminodithiolanes. 3,489,771, 1-13-70, Cl. 260-327.

Donche, Alain; and Thibault, Claude, to Societe Nationale des Petroles d'Aquitaine. Process for the preparation of iminothiazolidines. 3,505,348, 4-7-70, Cl. 260-306.7

Done, Clifford Graham; Casey, Eric Ronald; and Pearson, Edward, to English Electric Company Limited, The. Electric motors. 3,502,918, 3-24-70, Cl. 310-77.

Donelson, Harlan J., Jr. Particulate material cleaner. 3,503,502, 3-31-70, Cl. 209-139.

Donelson, Kenneth N.: *See—*
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Doner, Arthur John, to Resources Control Corporation. Portable incinerator. 3,543,701, 12-1-70, Cl. 110-8.

Donermeyer, Donald D.; and Isaksen, Robert A., to Monsanto Company. Starch hydrolyzate extended hydrolyzed vinyl ester polymeric systems. 3,488,724, 1-6-70, Cl. 260-17.4

Donermeyer, Donald D.; and Isaksen, Robert A., to Monsanto Company. Sizing of textile filament and yarn with mixture of hydroxy polymer and hydrolyzed starch. 3,503,794, 3-31-70, Cl. 117-139.5

Donets, Igor Denisovich: *See—*
Tulin, Nikolai Alexeevich; Bastrakov, Nikolai Fedorovich; Silaev, Alexandr Yakovlevich; Pismenov, Vitaly Semenovich; Krivtsova, Ljudmila Viktorovna; Gutara, Gennady Vasilievich; Pritulyak, Leonid Grigorievich; Borodin, Viktor Savelievich; and Donets, Igor Denisovich,3,523,995.

Donewald, James A.; and Schaefges, Henry E., to Motorola, Inc. Housing for electronic equipment with rotatable circuit board means. 3,544,848, 12-1-70, Cl. 317-99.

Donges, Ernst; and Hund, Helmut, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Metal anode for electrolytic cells. 3,507,771, 4-21-70, Cl. 204-284.

Donges, Richard A., to Miller, Herman, Inc. Seat structure. 3,497,260, 2-24-70, Cl. 297-449.

Doniger, Jerry; and Belsky, Fred J., to Bendix Corporation, The. Terminal flare controller. 3,523,663, 8-11-70, Cl. 244-77.

Doniger, Jerry; and Kostanty, Raymond, to Bendix Corporation, The. Amplitude control network. 3,535,650, 10-20-70, Cl. 330-135.

Doniger, Jerry; and McLaughlin, Joseph F., to Bendix Corporation, The. System for controlling flight of aircraft to attain a predetermined altitude. 3,545,703, 12-8-70, Cl. 244-77.

Doniger, Jerry; Platt, Walter A.; and Belsky, Fred J., to Bendix Corporation, The. Terminal flare controller. 3,523,664, 8-11-70, Cl. 244-77.

Donini, Attilio; Donini, Bruno; and Donini, Teodoro. Dry cleaning apparatus. 3,520,157, 7-14-70, Cl. 68-18.

Donini, Bruno: *See—*
Donini, Attilio; Donini, Bruno; and Donini, Teodoro,3,520,157.

Donini, Teodoro: *See—*
Donini, Attilio; Donini, Bruno; and Donini, Teodoro,3,520,157.

Donitz, Dieter, to Voigtlander A.G. Method and apparatus for automatically focussing optical devices. 3,504,610, 4-7-70, Cl. 95-44.

Donitz, Dieter, to Voigtlander A.G. Method and apparatus for focussing an optical device on an object distant therefrom. 3,516,742, 6-23-70, Cl. 356-4.

Donjon, Jacques, to Societe de Fabrication d'Instruments de Mesure (S.F.I.M.). Amplifier arrangement having low voltage drift with temperature variation. 3,516,006, 6-2-70, Cl. 330-69.

Donker, William R., to Econo-Cover Company. Closure member. 3,542,445, 11-24-70, Cl. 312-116.

Donlan, Thomas Alban: *See—*
Evans, Raymond Victor; and Donlan, Thomas Alban,3,543,705.

Donley, Ernest F., & Sons, Inc.: *See—*
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Donley, Harold E., to PPG Industries, Inc. Pyrolyzation process for forming silver films. 3,528,845, 9-15-70, Cl. 117-124.

Donley, Philip F., to Donley's, Ernest F., Sons, Inc., mesne. Shaft-sealing system. 3,492,008, 1-27-70, Cl. 277-83.

Donley, Philip F., to Donley, Ernest F., & Sons, Inc., mesne. Shaft-sealing system. 3,507,504, 4-21-70, Cl. 277-83.

Donley, Raymond G., Jr., to Nutron Electronics Company, mesne. Potentiometers. 3,509,510, 4-28-70, Cl. 338-180.

Donley, Samuel W.: *See—*
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Donley's, Ernest F., Sons, Inc.:*See—*
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Donmoyer, James L.: *See—*
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Donn, Ian Mackenzie: *See—*
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Donn Products, Inc.: *See—*
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Downing, Lucien R., Jr., 3,548,557.

Donna, Joseph D., to Honeywell Inc. Fabrication in electrical terminal connections. 3,539,975, 11-10-70, Cl. 339-176.

Donnally, Robert B.: *See—*
McEwen, John D.; and Donnally, Robert B.,3,498,375.

Donnell, Derrick: *See—*
England, Michael J.; Donnell, Derrick; and Hales, Eric C.,3,526,438.
England, Michael J.; Donnell, Derrick; and Hales, Eric C.,3,543,512.

Donnell, William F.; and Sheffield, Herman E., Jr., to Dresser Industries, Inc. Step-gain signal conditioning circuit. 3,525,880, 8-25-70, Cl. 307-237.

Donnelley, R. R., & Sons Company: *See—*
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Swanson, Kermit E., 3,522,943.

Donnelly, James M., to Automatic Electric Laboratories, Inc. Magnetic memory system having combined reading and high-speed writing apparatus. 3,509,552, 4-28-70, Cl. 340-174.

Donnelly, Joseph W.; and Bracken, Robert S., to Maul Bros., Inc. Triple gob glass feeder. 3,516,812, 6-23-70, Cl. 65-327.

Donnelly, Ralph G.; and Jones, Jack M., to United States of America, Atomic Energy Commission. Brazing alloy for joining graphite to graphite and to refractory metals. 3,497,332, 2-24-70, Cl. 29-195.

Donner, Edmund B.; and Ellis, Gerald E., to Solar Engineering and Equipment Co. Stenciling apparatus with traveling squeezee for decorating continuously moving ware. 3,518,938, 7-7-70, Cl. 101-40.

Donner, Edmund B.; and Ellis, Gerald E., to Solar Engineering and Equipment Co. Glass bottle decorating machine. 3,518,939, 7-7-70, Cl. 101-40.

Donner, Edward O.: *See—*
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Donner, Egon F.: *See—*
Stark, Troy C.; and Donner, Egon F.,3,508,163.

Donner, Fredric Arno. Percussion device for firearms. 3,496,828, 2-24-70, Cl. 89-26.

Donner, Fredrik, to Oy Tampella AB. Muzzle assembly for smooth-bore projectiles. 3,528,336, 9-15-70, Cl. 89-14.

Donner, Norman William. Fresh bait holder. 3,550,307, 12-29-70, Cl. 43-56.

Donner, Norman W. Fishing bucket. 3,513,584, 5-26-70, Cl. 43-56.

Donner, Robert J.; and Merrian, Mark M., to United Aircraft Corporation. Inverter protection scheme. 3,495,129, 2-10-70, Cl. 317-14.

Donner, Robert J.; and Michel, William, to United Aircraft Corporation. Inverter protection scheme. 3,491,370, 1-20-70, Cl. 317-14.

Donninger, Cyril; Davies, John H.; and Davis, Royston H., to Shell Oil Company. Carbamates. 3,522,287, 7-28-70, Cl. 260-465.4

Donofrio, Alfonso M., to Craft Master Corporation. Machine for forming multiple cavity containers from thermoplastic sheet material. 3,518,725, 7-7-70, Cl. 18-21.

Donofrio, Alfonso M.: *See—*
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D'Onofrio, Edmond J.; and Edwards, Robert B., to Eastman Kodak Company. Manufacture of improved polyester films. 3,547,748, 12-15-70, Cl. 161-46.

Donofrio, Frank C.; Hansell, Howard B.; Sabatino, Francis V.; and Stotler, Richard A., to Burroughs Corporation. Locking means for helically movable elements. 3,493,026, 2-3-70, Cl. 151-54.

Donoghue, Gerald Francis, to Du Pont de Nemours, E. I., and Company. Silver halide emulsion containing amphoteric coating aid. 3,493,379, 2-3-70, Cl. 96-114.

Donohue, Anthony J., deceased (by Donohue, Marguerite M., First Pennsylvania Bank and Trust Co., The; and Blanc, Joseph W.; trustees). Heating boiler. 3,528,393, 9-15-70, Cl. 122-33.

Donohue, John C.: *See—*
Schiebold, Warren L.; and Donohue, John C.,3,491,266.

Donohue, Marguerite M.: *See—*
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Donoian, Haig C.: *See—*
Rivin, Donald; Aron, Jerome; and Donoian, Haig C.,3,519,452.

Donovan, Donald W., to Monsanto Company. Egg carton. 3,510,049, 5-5-70, Cl. 229-44.

Donovan, Donald W., to Monsanto Company. Package. 3,530,917, 9-29-70, Cl. 150-0.5

Donovan, George T., to LeCenter Implement Company. Tractor tire transport holder. 3,501,037, 3-17-70, Cl. 214-331.

Donovan, James A.: *See—*
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Donovan, James, to Artisan Industries Inc. Multi-staged moving film and wiped film evaporators. 3,521,691, 7-28-70, Cl. 159-6.

Donovan, William F., to United States of America, Army. Quick release locating fixture. 3,550,889, 12-29-70, Cl. 248-176.

Donovick, Richard: *See—*
Meyers, Edward; Donovick, Richard; Weisenborn, Frank Lee; and Pansy, Felix Edward,3,496,268.
Myers, Edward; Donovick, Richard; Weisenborn, Frank Lee; and Pansy, Felix Edward,3,493,653.

Dozne, Michel, to L'Air Liquide, Societe Anonyme pour l'Etude des l'Exploitation des Procedes Georges Claude. Method of starting a scarfing pass. 3,515,189, 6-2-70, Cl. 148-9.5

Donzelle, Gerald. Medical apparatus for transportation, treatment and hospitalization of polytraumatized persons. 3,527,202, 9-8-70, Cl. 128-1.

Doo, Ven Y., to International Business Machines Corporation. Semiconductor structures of single crystals on polycrystalline substrates. 3,518,503, 6-30-70, Cl. 317-234.

D'Ooge, Charles L., to United States of America, Navy. Apparatus for submerged launching of missiles. 3,499,364, 3-10-70, Cl. 89-1.81

Dooley, Harry H.; Doda, Robert J.; and Mahon, Arthur F., to American Atomics Corporation. Pressure transducer varying position of radiant energy source in accordance with pressure change. 3,491,246, 1-20-70, Cl. 250-231.

Dooley, James L., to McCulloch Corporation. Vehicle power system intended for reduced air pollution. 3,493,066, 2-3-70, Cl. 180-54.

Dooley, Peter C., Jr.: *See—*
Avery, Ralph L.; and Dooley, Peter C., Jr.,3,495,867.

Dooley, Thomas E., to International Business Machines Corporation. Tone actuated dictation systems. 3,527,312, 9-8-70, Cl. 179-6.

Dooley, William P., to Sun Oil Company. Process for applying hot melt adhesive to corrugated paperboard. 3,518,142, 6-30-70, Cl. 156-205.

Doolittle, Howard D.; and Singer, Barry M., to Machlett Laboratories, Incorporated, The. High frequency power tube. 3,492,528, 1-27-70, Cl. 315-39.

Doolittle, Mac R., to Clark Equipment Company. Rotary and linear polyphase motors having staggered field winding arrangements. 3,497,730, 2-24-70, Cl. 310-13.

Doorfman, Edwin: *See—*
Weil, Edward D.; Doorfman, Edwin; and Linder, Jerome,3,501,556.

Doorley, Richard B.; and Settle, Paul S., Jr., to Railway Maintenance Corporation. Vehicle control apparatus. 3,518,422, 6-30-70, Cl. 246-167.

Dopp, David S.: *See—*
Bjorn, Thomas E.; and Dopp, David S.,3,499,330.

Doppelt, Max J. Cigarette and/or cigarette holder. 3,504,677, 4-7-70, Cl. 131-9.

Dopper, Otto: *See—*
Hoffmann, Bernd; Bollig, Georg; and Dopper, Otto,3,547,421.

Dopper, Otto; and Kirchgaesser, Johannes, to Schloemann Aktiengesellschaft. Plant for the treatment of rolled wire from the roll heat. 3,490,500, 1-20-70, Cl. 140-1.

Doppke, Herbert J.: *See—*
Teague, Dwight Maxwell; Loeser, Edward H.; and Doppke, Herbert J.,3,509,063.

Doquire, Gilbert: *See—*
Sacrez, Jules; Javaux, Gustave; Doquire, Gilbert; and Bodart, Marcel,3,551,126.
Sauveniere, Raymond; and Doquire, Gilbert,3,490,982.

Dor-O-Matic (G.B.) Limited: *See—*
Perry, Kenneth J., 3,545,030.

Doran, John G. Display assembly for furniture and home furnishings. 3,491,195, 1-20-70, Cl. 35-53.

Doran, Richard A.: *See—*
De Paolo, Patrick A., Jr.; and Doran, Richard A.,3,509,241.

Dorand, Pierre Rene Leon Bernard. Jet flap control. 3,525,576, 8-25-70, Cl. 416-20.

Dorbec, Lucien Prosper; Truffert, Alain Philippe; and Vautier, Philippe Jean, to Societe Anonyme de Telecommunications. Gas laser device with means for indicating optimum discharge conditions. 3,537,030, 10-27-70, Cl. 331-94.5

Dordelmann, Friedrich Wilhelm: *See—*
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Doreau, Jacques, to Societe a responsabilite Limitee dite, Cartonnages du Val de Seine. Apparatus for packaging a plurality of cylindrical articles. 3,527,016, 9-8-70, Cl. 53-48.

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Dorfelt, Christoph; and Andrascheck, Hans-Joachim, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Heat-and light-stabilized molding composition based on vinyl chloride polymers containing organotin stabilizers and process for making said stabilizers. 3,539,636, 11-10-70, Cl. 260-23.

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Dorfman, Edwin; and Emerson, William E., to Hooker Chemical Corporation. Alkyl cyanoperfluoroalkanoates. 3,535,351, 10-20-70, Cl. 260-404.

Dorfman, Edwin; and Emerson, William E., to Hooker Chemical Corporation. Alkyl perfluoroalkylene amidates. 3,544,618, 12-1-70, Cl. 260-482.

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Douglas, Bryce; Pagano, Joseph F.; Valenta, Joseph R.; and Zarembo, John E., to Smith Kline & French Laboratories. Methyl ester of 6'-ethyl-2', 3', 6', 7', 8', 8'a- hexahydro-4-methoxy-α-(methoxymethylene)-3- oxospiro [indoline-2,1'(5'H)-indolizine]-7'acetic. 3,534,052, 10-13-70, Cl. 260-294.3

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Douglas, Peyton W., to Blackstone Corporation. Lint filters and bleach dispensing devices. 3,520,156, 7-14-70, Cl. 68-17.

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Driscoll, Gary L., to Sun Oil Company. Polyesters of adamantanediols and aromatic tetracarboxylic aeid dianhyrides. 3,497,472, 2-24-70, Cl. 260-75.

Driscoll, Gary L., to Sun Oil Company. Haloamino derivatives of adamantane and alkyladamantanes and process for producing same. 3,522,306, 7-28-70, Cl. 260-563.

Driscoll, Gary L., to Sun Oil Company. Nitroadamantanes. 3,535,390, 10-20-70, Cl. 260-644.

Driscoll, Graham C., Jr., to International Business Machines Corporation. Interaction in a multi-processing system utilizing central timers. 3,551,892, 12-29-70, Cl. 340-172.5

Driscoll, Graham C., Jr., to International Business Machines Corporation. Look-ahead branch detection system. 3,551,895, 12-29-70, Cl. 340-172.5

Driscoll, Graham C., Jr.: *See—*
Mullery, Alvin P.; and Driscoll, Graham C., Jr.,3,541,520.

Driscoll, Graham C.; and Lehman, Meir M., to International Business Machines Corporation. Task selection in a multi-processor computing system. 3,496,551, 2-17-70, Cl. 340-172.5

Driscoll, John J., to Allied Research Associates, Inc. Silent mortar. 3,505,924, 4-14-70, Cl. 89-1.

Driscoll, John J., to Allied Research Associates, Inc. Automatic firearm having electrical ignition of cartridges in a rotating and reciprocating cylinder. 3,505,927, 4-14-70, Cl. 89-135.

Driscoll, John J., to Bell Telephone Laboratories, Incorporated. Code transmitter utilizing a printed circuit disc. 3,509,286, 4-28-70, Cl. 179-90.

Driscoll, John J., to Allied Research Associates, Inc. Consumable cartridge case. 3,513,776, 5-26-70, Cl. 102-38.

Driscoll, John J.; Hill, Donald G.; and Waddell, Richard E., to Bell Telephone Laboratories, Incorporated. Telephone reporting set. 3,549,810, 12-22-70, Cl. 179-5.

Driscoll, Patrick Robert, to Mobil Oil Corporation. Monohalophenylthiazolyl ureas. 3,499,910, 3-10-70, Cl. 260-306.8

Driscoll, Patrick Robert, to Mobil Oil Corporation. Use of monohalophenyl thiazolyl ureas as nematocides. 3,531,572, 9-29-70, Cl. 424-270.

Driscoll, Patrick R., to Mobil Oil Corporation. Substituted nitropyridines as herbicides. 3,495,969, 2-17-70, Cl. 71-94.

Driscoll, Patrick R.; and Kaufman, Harold A., to Mobil Oil Corporation. N-benzothienylchloroacetamides as pre- emergent herbicides. 3,495,967, 2-17-70, Cl. 71-90.

Driscoll, Richard E., to Cities Service Company. Process for producing improved pellets of a powder. 3,535,412, 10-20-70, Cl. 264-117.

Driscoll, Richard E.; and Gober, Leon, Jr., to Cities Service Company. Apparatus for pelletizing carbon black. 3,525,122, 8-25-70, Cl. 18-1.

Driscoll, Walter G.; Davison, Arthur L.; and Leeman, John R. Temperature compensated spectroscopic apparatus. 3,503,685, 3-31-70, Cl. 356-80.

Driskill, James L. Power actuated undercarriage for mobile home. 3,533,641, 10-13-70, Cl. 280-43.18

Drisko, Ralph L.: *See—*
Hazen, Gerald F.; and Drisko, Ralph L.,3,492,342.

Driver James E., Sr.: *See—*
Klein, Robert E.; and Driver James E., Sr.,3,514,988.

Driver, Wilbur B.: *See—*
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Driver, Wilbur B., Company: *See—*
Gottlieb, Arnold J.; and Majesko, George A., 3,516,824.

Driza, Charles E.; and O'Brien, Philip R., to Chevron Research Corporation. Tool for flaring and severing sleeves from plastics tubing. 3,509,599, 5-5-70, Cl. 18-19.

Drnec, Harry F.; and Foote, Allan E., to Container Corporation of America. Container with flanged cover. 3,520,467, 7-14-70, Cl. 229-44.

Drnevich, Roxanne Margaret: *See—*
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Drnovich, Joseph: *See—*
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Droeske, Gordon W.: *See—*
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Drogin, Edwin M., to United States of America, Army. Digital apparatus for generating a wave having an accurately predetermined phase setting. 3,517,319, 6-23-70, Cl. 328-55.

Drom, Edwin L., to Western Electric Company, Incorporated. Coil mounting assembly. 3,526,712, 9-1-70, Cl. 178-46.

Drop, Joseph G.: *See—*
Clark, Kendall; Beck, George C.; Creighton, Eugene J.; DeTurris, Frank L.; Drop, Joseph G.; Godat, Jean J. L.; Larsen, Arne H.; Rajac, Thomas J.; Santillo, George R., Jr.; and Schueike, Walter J.,3,499,203.

Drop, Joseph G., to International Business Machines Corporation. Electrical control system for a chip positioning machine. 3,499,204, 3-10-70, Cl. 29-203.

Droppa, Cyril; and Neuber, Ralph E., to Sylvania Electric Products, Inc. Electrostatic protection device. 3,509,470, 4-28-70, Cl. 328-8.

Drori, Moshe, to C.A.V. Limited. Liquid fuel injection pumps. 3,490,375, 1-20-70, Cl. 103-2.

Drori, Moshe, to C.A.V. Limited. Delivery valves. 3,547,148, 12-15-70, Cl. 137-540.

Dros, Albert August: *See—*
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Droste, Werner; and Stammer, Hans-Hermann, to Licentia Patent-Verwaltungs-G.m.b.H. Motor drive system for lifting devices. 3,535,603, 10-20-70, Cl. 318-105.

Drouillard, Leonard; and Zanette, Anthony. Boot puller. 3,526,346, 9-1-70, Cl. 223-114.

Drouin, Andre H., to Rockwell Manufacturing Company. Underwater safety connector. 3,498,374, 3-3-70, Cl. 166-0.5

Drouineau, Christian, to Beuchat, Georges. Catapult cord attachment device on a projector. 3,525,321, 8-25-70, Cl. 124-22.

Drown, John L.: *See—*
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Drozd, Joseph C., to Zenith Radio Corporation, mesne. Process of electrostatically screening color cathode-ray tubes. 3,489,556, 1-13-70, Cl. 96-1.

Drozhzhenikov, Alexei Maximovich: *See—*
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Dru, Rene. Container equipped with two superposed covers and detachable handle. 3,542,236, 11-24-70, Cl. 220-29.

Drucker, Arnold; and Grayson, Martin, to American Cyanamid Company. Process for producing odorless organic phosphines. 3,489,811, 1-13-70, Cl. 260-606.5

Druesne, Henri Desire: *See—*
Doll, Jean Henri; and Druesne, Henri Desire,3,515,596.
Doll, Jean Henri; and Druesne, Henri Desire,3,537,908.

Druey, Jean; and Schmidt, Paul, to Ciba Corporation. 1-(or 2-) Substituted 4-mercapto-pyrazolo [3,4-d] pyrimidines. 3,551,428, 12-29-70, Cl. 260-256.5

Druker, Leonard J.; and Sachi, Leonard Wayne, to Minnesota Mining and Manufacturing Company. Dry process proof sheet composition. 3,515,559, 6-2-70, Cl. 96-109.

Drukker, Alexander E.; and Judd, Claude I., to Colgate-Palmolive Company. 6-Aminoalkyl morphanthridine derivatives. 3,503,957, 3-31-70, Cl. 260-239.

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Drukker, John J., to Flintkote Company, The. Stabilized mineral clay asphalt latex emulsions. 3,493,408, 2-3-70, Cl. 106-277.

Drum, Edward W., to Ransburg Electro-Coating Corporation. Electrostatic coating apparatus. 3,512,502, 5-19-70, Cl. 118-624.

Drum, Edward W.: *See—*
Williams, Herschel A.; and Drum, Edward W.,3,492,409.

Drum Engineering Co. Limited, The: *See—*
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Drum Fire, Inc.: *See—*
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Nielsen, Herman; and Valliant, Stephen S., 3,526,984.

Drum Parts, Inc.: *See—*
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Kohout, Frank J., 3,500,530.

Drumm, Edward J., to Little Learners, Inc. Teaching system for children. 3,546,788, 12-15-70, Cl. 35-8.

Drummond, Edward L.; and Drummond, Michael E., to Drummond Instrument Company. Assembly for injecting liquid samples into the chamber of a gas chromatography apparatus. 3,501,964, 3-24-70, Cl. 73-425.6

Drummond, Edward L.; and Drummond, Michael E., to Drummond Instrument Company. Microliter syringe having disposable parts. 3,537,453, 11-3-70, Cl. 128-218.

Drummond Instrument Company: *See—*
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Drummond, Edward L.; and Drummond, Michael E., 3,537,453.

Drummond, John; and Vanderstegen-Drake, Stamford Robert Francis, to Plenty & Son Limited. Pipe-line sampling apparatus. 3,541,861, 11-24-70, Cl. 73-422.

Drummond, Michael E.: *See—*
Drummond, Edward L.; and Drummond, Michael E.,3,501,964.
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Drummond, Warren W.: *See—*
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Drummond, Warren W., to PPG Industries, Inc. Method and apparatus for forming and winding glass strand. 3,532,478, 10-6-70, Cl. 65-2.

Drummond, Warren W., to PPG Industries, Inc. Forming and winding glass fiber strand. 3,535,097, 10-20-70, Cl. 65-2.

Drummond, William D., to International Harvester Company. Duplex implement. 3,528,506, 9-15-70, Cl. 172-314.

Drury, Francis M.; and Priest, Jerry A., to General Electric Company. Refrigeration system including refrigerant noise suppression. 3,531,947, 10-6-70, Cl. 62-511.

Drushel, Robert W., to Ex-Cell-O Corporation. Circuit for and method of current responsive electronic control. 3,508,115, 4-21-70, Cl. 317-27.

Drushel, Robert W., to Ex-Cell-O Corporation. Electronic control circuit. 3,521,083, 7-21-70, Cl. 307-231.

Drushel, Robert W.; and Erickson, Carl R., to Ex-Cell-O Corporation. Electric circuit start-up protection method and structure. 3,548,257, 12-15-70, Cl. 317-13.

Drutchas, Gilbert Henry; Clark, Hubert M.; and Scibbe, Harold R., to TRW Inc. Hydraulic power brake system with skid control. 3,539,227, 11-10-70, Cl. 303-21.

Druylants, Paul, to Solvay & Cie. Short-circuiting device for electrolytic cell. 3,494,850, 2-10-70, Cl. 204-228.

Druzba, Perry R., Jr.: *See—*
Goetz, Fred E.; Druzba, Perry R., Jr.; Hause, James R.; and Seeley, Gerard,3,550,325.

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Dry Ballast, Inc.: *See—*
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Dry, John P. Plastic register with shutter blades. 3,500,739, 3-17-70, Cl. 98-110.

Dryden Chemicals Limited: *See—*
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Benko, Julius, 3,546,197.

Dryden Paper Company, Limited: *See—*
MacDonald, Ernest G.; and Berg-Johannessen, Per R., 3,537,584.

Dryden, Robert M., to Amchem Products, Inc. Dithioglutarimide herbicidal composition and method of use. 3,505,058, 4-7-70, Cl. 71-94.

Dryden, Vernon W.; and Johnston, Donald L., to Xerox Corporation. Chemical package. 3,545,934, 12-8-70, Cl. 23-253.

Dryer, Ronald L. Variable picture frame assembly. 3,523,382, 8-11-70, Cl. 40-152.

Drykerman, George A.: *See—*
Lane, Stanley S.; and Drykerman, George A.,3,520,309.

Drymit S.A.: *See—*
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Dryon, Jacques Max Charles, to Ateliers Heuze, Malevez et Simon Reunis Societe Anonyme. Apparatus for scoring sheet glass. 3,515,020, 6-2-70, Cl. 83-11.

Dryon, Jacques Max Charles, to Ateliers Heuze, Malevez et Simon Reunis Societe Anonyme. Process and arrangement for breaking a sheet of glass. 3,517,869, 6-30-70, Cl. 225-2.

Drysdale & Company Limited: *See—*
Nicol, James B., 3,497,066.
Nicol, James B., 3,522,881.
Nicol, James B., 3,524,547.

Dual Gebruder Steidinger, Firma: *See—*
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Dual Gebruder Steidinger: *See—*
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Dual Jet Refrigeration Co.: *See—*
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Dual Manufacturing & Engineering Incorporated: *See—*
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Re, Frank M., 3,522,969.

Dubb, Hubert E.; Greenough, Ralph C.; and Tuffly, Bartholomew L., to North American Rockwell Corporation. Inhibited nitrogen tetroxide with fluorine- containing oxidizer. 3,507,717, 4-21-70, Cl. 149-1.

Dubbelman, Pieter; Keimpema, Keimpe Klaas; and van der Ham, Pieter Cornelis, to U.S. Philips Corporation, mesne. Electric vacuum cleaner. 3,530,527, 9-29-70, Cl. 15-327.

Dubbels, Richard P., to Bristol-Myers Company. Pill dispensing means. 3,494,322, 2-10-70, Cl. 116-121.

Dubberley, Charles A., to General Electric Company. Vibration mount for compressors and the like. 3,531,069, 9-29-70, Cl. 248-15.

Dubbs, Richard A.; McGlade, Francis S.; and McGlade, William G. Tethered ring game apparatus. 3,520,535, 7-14-70, Cl. 273-99.

Dube, Milford J.; and Yorgensen, Harry P., to Ney, J. M., Company, The. Interconnection for printed circuits and method of making same. 3,509,270, 4-28-70, Cl. 174-68.5

Dubeck, Michael; and Jolly, James G., to Ethyl Corporation. Process for introducing an alkyl group. 3,501,541, 3-17-70, Cl. 260-668.

Dubeck, Michael; and Jolly, James G., to Ethyl Corporation. Preparation of paraffinic hydrocarbons from acyclic, monohydric, primary alkanols and aldehydes having up to 24 carbon atoms with a catalyst consisting of palladium dispersed on titanium dioxide. 3,501,546, 3-17-70, Cl. 260-676.

Dubey, George A., to MIF Industries, Inc. Multi-purpose fuse cut-out and insulator bracket. 3,494,584, 2-10-70, Cl. 248-221.

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Dubied, Ed., & Cie S.A.: *See—*
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Dubied, Edouard, et Cie, (Societe Anonyme): *See—*
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Dubin, Sol. Skid for palletized loads having integral shock absorbing means. 3,523,507, 8-11-70, Cl. 108-51.

Dubin-Haskell-Jacobson (S.A.) (Proprietary) Limited: *See—*
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Dubinsky, Emanuel. Umbrella cover. 3,490,469, 1-20-70, Cl. 135-33.

Dubny, Ladislav, to Meopta, narodni podnik. Film holder for a projection apparatus. 3,542,471, 11-24-70, Cl. 355-75.

Dubois, Andre, to Commissariat a l'Energie and Electricite de France. Copper supported ceramic electrodes for magneto-hydrodynamic generators. 3,488,548, 1-6-70, Cl. 313-346.

Dubois, Andre; and Parizot, Daniel. Nozzle wall construction for thermoelectric machine. 3,524,087, 8-11-70, Cl. 310-11.

Du Bois, Andrew Oakley, to Air Reduction Company, Incorporated, mesne. Apparatus for producing and directing an electron beam in an electron beam furnace. 3,497,602, 2-24-70, Cl. 13-31.

DuBois, Chester, to Outboard Marine Corporation. Coupler. 3,497,249, 2-24-70, Cl. 287-104.

DuBois, Chester, to Outboard Marine Corporation. Solenoid operated choke. 3,534,720, 10-20-70, Cl. 123-119.

Dubois, Georges Fernand. Refuse containers. 3,502,242, 3-24-70, Cl. 220-63.

Dubois, Gerald, to Valjoux S.A. Return to zero mechanism of two chronograph counters. 3,495,397, 2-17-70, Cl. 58-74.

Dubois, Gerald; and Marmier, Paul, to Buren Watch Company, S.A. Selfwinding wrist-watch with a chronograph mechanism. 3,543,506, 12-1-70, Cl. 58-74.

Dubois, Jean Claude: *See—*
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Cholet, Jacques; and Dubois, Jean Claude,3,524,519.

Dubois, Jean Claude, to U.S. Philips Corporation, mesne. Electro-luminescent diode and radiation projector. 3,518,418, 6-30-70, Cl. 240-41.35

Dubois, Jean Claude, to Institut Francais du Petrole, des Carburants et Lubrifiants. Three-electrode spark gap device for switching high current intensities under high voltage. 3,543,075, 11-24-70, Cl. 313-197.

Dubois, Jean Claude; and James, Andre, to Institut Francais du Petrole, des Carburants et Lubrifiants. Sparking devices suitable for seismic prospecting. 3,537,542, 11-3-70, Cl. 181-0.5
Tillays, Jacques; and Dubois, Jean Claude,3,508,100.

Du Bois, Marvin A., Jr. Electrical resistor structure. 3,550,058, 12-22-70, Cl. 338-57.

Dubois, Richard, Jr.: *See—*
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DuBois, Richard, Jr.; and Raago, Rein, to Wagner Electric Corporation. Digit readout device. 3,509,402, 4-28-70, Cl. 313-109.5

Dubois, Robert, to Colfico S.A. Heated surface and process to manufacture such a heated surfacing. 3,491,439, 1-27-70, Cl. 29-611.

DuBois, William H. Hydraulic brake actuating and control system. 3,537,759, 11-3-70, Cl. 303-21.

Dubord, Albert E. Instrument using intermediate storage for reproducing pre-recorded information. 3,529,101, 9-15-70, Cl. 179-100.2

Dubosc, Jean-Pierre Camille; Schnuriger, Bernard Antony; and Thiebaut, Roger Paul Gaston, to Eastman Kodak Company. Photoconductive layers and their application to electrophotography. 3,503,739, 3-31-70, Cl. 96-1.5

Du Bosque, Clayton, Jr., to American Machine & Foundry Company. Multiple unit high speed apparatus for applying tread to tire casings. 3,539,415, 11-10-70, Cl. 156-397.

Dubow Chemical Corporation: *See—*
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Siegel, Louis S., 3,512,286.

Dubow, Jerome, to Dubow Chemical Corporation. Sulfur extraction apparatus including residue treating flotation means. 3,512,943, 5-19-70, Cl. 23-267.

Dubowicz, Palemon W.; and Slechta, John S., to United States of America, Army. Tunable electronic preselector for a radio receiver. 3,550,011, 12-22-70, Cl. 325-475.

Du Bray, Kenneth D. Portable and collapsible fish house. 3,507,293, 4-21-70, Cl. 135-4.

Dubrovin, Genrikh Fedorovich; and Voronov, Vladimir Valerievich. Device for heat treatment of wound ribbon magnetic cores. 3,507,967, 4-21-70, Cl. 13-1.

Dubrovin, Kenneth P., to Gulf Research & Development Company. Combating weeds in sugar beets. 3,539,333, 11-10-70, Cl. 71-111.

Dubrovsky, Ricardo S.; and Tomany, James P., to Universal Oil Products Company. Apparatus for varying the cross-sectional area of the throat of a venturi tube. 3,511,268, 5-12-70, Cl. 137-487.

Dubrowsky, Leonard, to Westinghouse Electric Corporation. Ferrite polarizers comprising latchable ferrite bodies. 3,546,634, 12-8-70, Cl. 333-21.

Du Brueler, Ralph, Jr., to Bowles Engineering Corporation. Pure fluid pulse converter. 3,490,478, 1-20-70, Cl. 137-81.5

Dubs, Gustav, to Adolph Saurer Ltd. Weft inserting device. 3,517,704, 6-30-70, Cl. 139-122.

Dubs, Paul; Hoffman, Robert; and Keiser, Fritz, to SCM Corporation. Reciprocable platen in selective print wheel printing machine. 3,540,373, 11-17-70, Cl. 101-96.

Dubsky, George Jon; and Stark, Bernard Peter, to Ciba Limited. Epoxy resin compositions containing vinyl compounds and chelates. 3,551,519, 12-29-70, Cl. 260-836.

Dubuc, Rene A., to Texas Instruments, Incorporated. Metal inlay and method for making the same. 3,499,211, 3-10-70, Cl. 29-480.

Dubuit, Louis Gilbert. Apparatus for automatically printing two faces of an object. 3,533,353, 10-13-70, Cl. 101-40.

Dubuque Awning & Tent Company: *See—*
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Oeth, Thomas F.; and Riggs, Leslie C., 3,503,750.

Dubus, Gerard: *See—*
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Dubus, Gerard, to Service d'Exploitation Industrielle des Tabacs et des Allumettes. Device for collecting and distributing objects from a plurality of partial streams. 3,536,180, 10-27-70, Cl. 198-30.

Ducasse, Joseph Christophe Victor. Cane disintegrator. 3,532,145, 10-6-70, Cl. 146-117.

Ducati Elettrotecnica S.p.A.: *See—*
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Ducey, James A.; and Young, Willard G., to Case Manufacturing Company. Ventilated water closet. 3,548,424, 12-22-70, Cl. 4-215.

Duchateau, Willy; and Servais, Albert, to Glaverbel S.A. Electrostatic variable light reflecting arrangement. 3,535,022, 10-20-70, Cl. 350-160.

Duchemin, Pierre; and Etienne, Jean-Claude, to La Telemecanique Electrique. Mechanical memory device, magnetically actuated. 3,540,013, 11-17-70, Cl. 340-173.

Duchene, Jacques: *See—*
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Duchene, Joseph R., to Allied Research Products, Incorporated. Electrodeposition of nickel. 3,506,548, 4-14-70, Cl. 204-49.

Duchesneau, Eugene Alfred: *See—*
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Duck, Edward William; and Grieve, David Page, to International Synthetic Rubber Company Limited, The. Ethylene copolymerisation catalyst. 3,518,237, 6-30-70, Cl. 260-80.78

Duck, Edward William; and Grieve, David Page, to International Synthetic Rubber Company Limited, The. Production of rubbery ethylene copolymers. 3,536,678, 10-27-70, Cl. 260-80.78

Duck, Ivan A.: *See—*
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Duck, Ivan Alfred, to Brown, S. G., Limited. Spring pivots. 3,515,006, 6-2-70, Cl. 74-5.

Duckerhoff & Widmann Kommanditgesellschaft: *See—*
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Duckett, John W., to Ward Manufacturing Co., Inc. Apparatus for molding articles. 3,545,039, 12-8-70, Cl. 18-4.

Duckett, John W.; Poehlmann, Paul W.; and Scott, George E., to Composite Structures Incorporated. Seat construction. 3,531,157, 9-29-70, Cl. 297-248.

Duckett, William A., to Woodhead-Monroe Limited. Hydraulic vibration damper. 3,513,947, 5-26-70, Cl. 188-100.

Duckworth, James J.; Schnog, Norbert; and Muller, Alfred B., to Singer Company, The. System providing a D.C. voltage equal to the R.M.S. value of an unknown A.C. voltage. 3,518,525, 6-30-70, Cl. 321-1.5

Duclaux, Daniel, to Pechiney-Compagnie de Produits Chimiques et Electrometallurgiques. Apparatus for control of consumable anodes in electrolytic systems. 3,523,882, 8-11-70, Cl. 204-194.

Ducos, Maurice: *See—*
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Ducourneau, Pierre. Meat cutting machines. 3,515,192, 6-2-70, Cl. 146-102.

Duda, A., & Sons, Inc.: *See—*
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Duda, John L., Jr., to Duda, A., & Sons, Inc. Harvesting machine. 3,543,493, 12-1-70, Cl. 56-327.

Duda, Mitchell W. Traction actuated devices for facilitating walking on water. 3,541,623, 11-24-70, Cl. 9-310.

Duda, Otto H., to Diamond International Corporation. Aspirating type of dispenser. 3,506,158, 4-14-70, Cl. 222-108.

Duda, William L.; Fleisher, Harold; and Reynolds, Jerry L., to International Business Machines Corporation. Positioning system. 3,541,338, 11-17-70, Cl. 250-219.

Duda, William L.; and Max, Erhard, to International Business Machines Corporation. Error control for memory. 3,501,748, 3-17-70, Cl. 340-172.5

Dudarevitch, Mitchell D.; von Schmeling, Bogislav; and Kulka, Marshall, to Uniroyal, Inc. Control of animal disease using certain 2,3- dihydro-5-carboxamido-6-methyl-1,4-oxathiins. 3,538,225, 11-3-70, Cl. 424-276.

Duddy, Joseph C., to ESB Incorporated. Method for operating a fuel cell. 3,494,797, 2-10-70, Cl. 136-86.

Duddy, Joseph C., to ESB Incorporated. Method of forming the electrodes in a low maintenance storage battery. 3,518,124, 6-30-70, Cl. 136-27.

Duddy, Joseph C., to ESB Incorporated. Silver chloride battery and method of operating same. 3,525,645, 8-25-70, Cl. 136-86.

Dudek, Edmund C., to Singer Company, The. Sabre saws with 360° swivel saw bar. 3,494,390, 2-10-70, Cl. 143-68.

Dudek, Edmund C., to Singer Company, The. Belt cleaners for belt sanders. 3,535,829, 10-27-70, Cl. 51-170.

Dudek, Edmund C., to Singer Company, The. Chuck attachment for sabre saws. 3,547,166, 12-15-70, Cl. 143-68.

Dudek, Edmund C.; Batson, William A.; and Fegan, Richard M., to Singer Company, The. Dual motion pad sanders. 3,533,193, 10-13-70, Cl. 51-170.

Dudek, Edmund C.; and Fegan, Richard M., to Singer Company, The. Chuck assembly for sabre saws. 3,542,097, 11-24-70, Cl. 143-156.

Dudek, Jozef; Goczal, Jan; Golek, Jan; Jezierski, Karol; Kus, Leslaw; and Markiewicz, Kazimerz, to Instytut Metalurgil Zelaza Im Stanislawa Staszica. Metal strip heating apparatus. 3,542,999, 11-24-70, Cl. 219-155.

Dudek, Jozef; Goczal, Jan; Golek, Jan; Kus, Leslaw; and Markiewicz, Kazimierz, to Instytut Metalurgil Zeleza Im. Stanislawa Staszica. Brush electrode. 3,525,847, 8-25-70, Cl. 219-119.

Dudeney, Peter N., to Baird-Atomic, Inc. Temperature compensated spectrometer. 3,537,796, 11-3-70, Cl. 356-74.

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Dudgeon, Earl Howard, to Canadian Patents and Development Limited. Copper smelting converter having an infrared analyzer for determining the concentration of sulfur dioxide in the flue gas. 3,513,307, 5-19-70, Cl. 250-43.5

Dudin, Anatoly Alexeevich: *See—*
Lysenko, Dmitry Nikolaevich; Ermolaev, Valerian Vladimorovich; and Dudin, Anatoly Alexeevich,3,520,049.

Dudin, Vitaly Vasilevich; and Latyshev, Konstantin Vasilievich. Axle-box for the axle of pair of wheels of rolling stock. 3,531,166, 9-29-70, Cl. 308-83.

Dudko, Daniil Andreevich: *See—*
Maximovich, Boleslav Ivanovich; Dudko, Daniil Andreevich; and Zavodian, Vitaly Voitsekhovich,3,504,148.

Dudley, Dennis William; Edge, Arthur James; and Wright, Gerald Noel, to Smiths Industries Limited. Electromagnetic positioned indicator wheel. 3,508,256, 4-21-70, Cl. 340-378.

Dudley, Harvey H., to Eastman Kodak Company. Battery powered motion picture camera having a pistol grip handle pivotably supported on the camera housing. 3,519,341, 7-7-70, Cl. 352-95.

Dudley, James M. Gear shift device. 3,504,570, 4-7-70, Cl. 74-544.

Dudley, John S., to Dennison Manufacturing Company. Pinning machine. 3,527,396, 9-8-70, Cl. 227-25.

Dudley, John Trevor, to GKN Sankey Limited. Motor vehicles. 3,541,880, 11-24-70, Cl. 74-503.

Dudley, Raymond F. Braided rope sling. 3,545,334, 12-8-70, Cl. 87-8.

Dudley, Roger W., to Top-A-Telix Corporation. Retrievable encapsulated article and method of making and retrieving same. 3,522,673, 8-4-70, Cl. 40-158.

Dudley, William A., to Martin-Marietta Corporation. System for displaying video information and related indicia on a single gun cathode ray tube. 3,543,269, 11-24-70, Cl. 343-5.

Dudley, William A.: *See—*
Lamb, Charles Paul; Dudley, William A.; and Fox, J. Boyd,3,530,874.

Dudley, William G.; and Rich, Harold, to General Electric Company. Temperature strain relief mounting for D-C meter armature coil. 3,519,934, 7-7-70, Cl. 324-154.

Dudley, William L.: *See—*
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Dudouyt, Jean-Paul Antoine. Adjustable baby seat. 3,492,047, 1-27-70, Cl. 297-377.

Dudschus, Dallas L. Foldable, adjustable height platform assembly mountable on a vehicle. 3,493,079, 2-3-70, Cl. 182-141.

Dudych, Daniel; Heinze, Walter W.; and Humbard, Lawrence D., to Universal Oil Products Company. Reactor with floating fluid distributor means. 3,489,529, 1-13-70, Cl. 23-285.

Dudzik, Zdzislaw F., to Canadian Patents and Development Limited. Catalysts having stable free radicals containing sulfur. 3,516,947, 6-23-70, Cl. 252-439.

Dudzinski, Zdzislaw J., to Millmaster Onyx Corporation. Process of making aliphatic amines. 3,497,555, 2-24-70, Cl. 260-583.

Dudzinski, Zdzislaw J., to Millmaster Onyx Corporation. Process for making alkyl tertiary amines. 3,548,001, 12-15-70, Cl. 260-583.

Dudzinski, Zdzislaw J.: *See—*
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Dudzinski, Zdzislaw W.; and Wakeman, Reginald L., to Millmaster Onyx Corporation. 2-Alkyl quaternary ammonium compounds. 3,535,380, 10-20-70, Cl. 260-567.6

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Dueker, Stanley T., to Schlumberger Technology Corporation. Acoustic well-logging apparatus. 3,504,758, 4-7-70, Cl. 181-0.5

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Biland, Hans Rudolf; Eschle, Karl; Luethi, Christian; and Duennenberger, Max,3,530,127.
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Duennenberger, Max; and Guglielmetti, Leonardo, to Ciba Limited. 2-Phenylbenzoxazole derivatives. 3,551,443, 12-29-70, Cl. 260-307.

Duennenberger, Max; Luethi, Christian; and Biland, Hans Rudolf, to Ciba Limited. Protection of organic materials from ultraviolet radiation. 3,511,804, 5-12-70, Cl. 260-45.85

Duennenberger, Max; and Schellenbaum, Max, to Ciba Limited. Furan-2,5-dicarboxylic acid diamides. 3,546,255, 12-8-70, Cl. 260-347.3

Duer, Morris J.; and Krieg, Thomas J., to General Motors Corporation. Differential assembly and axle shaft retainer therefor. 3,527,120, 9-8-70, Cl. 74-711.

Dueringer, Heinrich, to Eidophor A.G. Light valve image projection with trapezoidal wave focus-defocus beam control for flood effect. 3,504,117, 3-31-70, Cl. 178-7.5

Dueringer, Heinrich; and Ott, Hans, to Eidophor A.G. System for stabilising the position and size of a raster scanned by an electron beam on a target. 3,517,251, 6-23-70, Cl. 315-19.

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Duffey, Donn W., to Duriron Company, Inc., The. Plug valves having relieved high pressure seal areas. 3,498,318, 3-3-70, Cl. 137-375.

Duffield, Alan, to Imperial Chemical Industries Limited. Thermoplastic laminates having improved surface properties. 3,515,626, 6-2-70, Cl. 161-162.

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Duffy, Michael C.; Kennedy, David P.; Murley, Philip C.; Armstrong, William J.; and Seaboldt, Jack Jay, to International Business Machines Corporation. Diffusion process. 3,490,962, 1-20-70, Cl. 148-187.

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Dufour, Paolo. Apparatus for eliminating digital indicator fluctuations. 3,551,809, 12-29-70, Cl. 324-99.

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Duguay, Michel A.; Giordmaine, Joseph A.; and Rentzepis, Peter M., to Bell Telephone Laboratories, Incorporated. Display system using two-photon fluorescent materials. 3,541,542, 11-17-70, Cl. 340-324.

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Dunay, Michael, to Celanese Corporation. Adhesive composition. 3,539,523, 11-10-70, Cl. 260-32.6

Dunay, Michael; and Sprague, Basil S., to Celanese Corporation. Solvents for spinning solution of polyester urethanes. 3,498,944, 3-3-70, Cl. 260-33.4

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Dunbar, Glenn G. Loading and hauling apparatus. 3,520,430, 7-14-70, Cl. 214-390.

Dunbar, Glenn G. Vehicle mounted loading hoist. 3,547,284, 12-15-70, Cl. 214-77.

Dunbar, Jack D., to Bell Aerospace Corporation. Method of manufacturing bellows. 3,512,244, 5-19-70, Cl. 29-454.

Dunbar, Joseph E., to Dow Chemical Company, The. Substituted oxyethyl thiolsulfonates. 3,538,138, 11-3-70, Cl. 260-453.

Dunbar, Joseph E.; and Tarnowski, Betty H., to Dow Chemical Company, The. Naphtho- and benzothiazines, thiazinobenzothiazines and their oxides. 3,510,481, 5-5-70, Cl. 260-243.

Dunbar, Joseph E.; and Tarnowski, Betty H., to Dow Chemical Company, The. Thiazinobenzothiazine derivatives. 3,511,831, 5-12-70, Cl. 260-240.

Dunbar, Joseph E.; and Zemba, John W., to Dow Chemical Company, The. (4-Oxo-1,2,3-benzotriazin-3[4H]-ylmethyl thiolsulfonate esters. 3,532,697, 10-6-70, Cl. 260-248.

Dunbar, Robert R.: *See—*
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Dunbavan, John, to Leyland Motors Limited. Vehicle body construction. 3,537,744, 11-3-70, Cl. 296-28.

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Duncan, Angelo N., to Smith, A. O., Corporation. Circulating liquid heating system. 3,515,123, 6-2-70, Cl. 126-362.

Duncan, Edward T., to Product Research Associates, Incorporated. Heat dissipating lamp dimmer of the screw-in type. 3,496,451, 2-17-70, Cl. 323-16.

Duncan Electric Company, Inc.: *See—*
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Duncan, Elmer J.; and Stallings, Ervin R., to Wilson, J. G., Corporation, The. Side-coiling articulated curtain and drive mechanism therefor. 3,490,514, 1-20-70, Cl. 160-23.

Duncan, Frederic James: *See—*
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Duncan, George I.; and Mees, Robert D., to General Electric Company. Dry type transformer with improved encapsulating composition. 3,488,616, 1-6-70, Cl. 336-96.

Duncan, Gordon W., to Upjohn Company, The. Medicated devices and methods. 3,545,439, 12-8-70, Cl. 128-2.60

Duncan Industries, Inc.: *See—*
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Duncan, Jack R.: *See—*
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Duncan, James W.; and Stencel, Fred B., to Stencel Aero Engineering Corporation. Aircraft ejection seat system. 3,525,490, 8-25-70, Cl. 244-122.

Duncan, James W.; and Stencel, Fred B., to Stencel Aero Engineering Corporation. Adjustable ejection seat with canopy breakers. 3,542,319, 11-24-70, Cl. 244-122.

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Duncan, John Julian, to GAF Corporation. Durable-to-washing finish for the inhibition of gas fading of spandex fibers and fabrics. 3,514,321, 5-26-70, Cl. 117-138.8

Duncan, Leon L., to Zero Manufacturing Company. Method and apparatus for producing a decorative effect on stainless steel and other surface. 3,545,996, 12-8-70, Cl. 117-8.

Duncan, Lloyd N.: *See—*
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Duncan, Lloyd P., to Zero Manufacturing Company. Milk measuring device. 3,538,768, 11-10-70, Cl. 73-202.

Duncan, Lloyd P., to Zero Manufacturing Company. Pipeline milking system. 3,549,292, 12-22-70, Cl. 119-14.41

Duncan Parking Meter Corporation: *See—*
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Duncan, Robert C.; and Gellert, Dale A., to Procter & Gamble Company, The. Topsheet for disposable diapers. 3,489,148, 1-13-70, Cl. 128-284.

Duncan, Robert S.; and Parker, Marsena R., Jr., to Bell Telephone Laboratories, Incorporated. Acoustic delay line. 3,522,557, 8-4-70, Cl. 333-30.

Duncan, William A.: *See—*
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Dunderdale, Keith Frederick, to Imperial Chemical Industries Limited. Vapour permeable sheet materials. 3,510,344, 5-5-70, Cl. 117-76.

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Dungler, Julien. Electrostatic filter for the purification of gases and particularly of the air. 3,537,238, 11-3-70, Cl. 55-131.

Dunham, Heyward O. Smoking pipe holder. 3,538,923, 11-10-70, Cl. 131-186.

Dunham, Homer R. G.; and Lewis, Gerald F., to Interchemical Corporation. Paint proportioning apparatus. 3,530,590, 9-29-70, Cl. 33-126.7

Dunham, Kenneth R.; Rields, Donald L.; Borden, Douglas G.; and Miller, Jerry B., to Eastman Kodak Company. Photoresist composition. 3,526,503, 9-1-70, Cl. 96-33.

Dunham, Leroy A.; and Belanger, William J., to Celanese Coatings Company. Aqueous coating compositions from butadiene based adducts. 3,489,704, 1-13-70, Cl. 260-23.7

Dunham, Russell H., to Dunham Tool Company, Inc., The. Workpiece stop for collet chucks. 3,510,141, 5-5-70, Cl. 279-51.

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Dunkel, Morris; Eckhardt, Daniel J.; and Stern, Alfred, to Universal Oil Products Company. Hydrogenation of cinnamaldehyde. 3,520,934, 7-21-70, Cl. 260-599.

Dunkelis, Evald, to GPE Controls, Inc. Handcrank for liquid level gauge. 3,524,524, 8-18-70, Cl. 192-35.

Dunkelis, Evald, to GPE Controls, Inc. Magnetic bias adjusting means for tank vent. 3,528,453, 9-15-70, Cl. 137-527.8

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Dunlap, Arthur H. Thrust-pole propelled tricycle. 3,511,520, 5-12-70, Cl. 280-219.

Dunlap, Bert James, to Container Corporation of America. Easy open carton. 3,543,998, 12-1-70, Cl. 229-51.

Dunlap, Carroll G. Towing arrangement for water skiing and like sports. 3,494,319, 2-10-70, Cl. 115-6.1

Dunlap, Charles K., Jr.; and Brooking, Hurley R., to Sonoco Products Company. Wound tube with string loop. 3,511,281, 5-12-70, Cl. 138-103.

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Dunlap, Harold E.; and Bedard, Roger E., to Lodding Engineering Corporation. Doctor blade holder. 3,529,315, 9-22-70, Cl. 15-256.51

Dunlap, Henry F., to Atlantic Richfield Company. Method of joining oil well casing and tubing with adhesive. 3,502,150, 3-24-70, Cl. 166-315.

Dunlap, Jerald V. Segmented thread coupling. 3,540,762, 11-17-70, Cl. 285-391.

Dunlap, Jerald V.; and Morrison, James L. D. Coupling and seal apparatus for hoses and other tubular conduits for fluids. 3,519,290, 7-7-70, Cl. 285-81.

Dunlap, Laurel E. Support mechanism for template guided tool. 3,541,922, 11-24-70, Cl. 90-13.

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Dunlap, Robert Kirby, to Celanese Corporation. Wrinkle resistant fabric. 3,512,920, 5-19-70, Cl. 8-115.7

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Dunlavy, Alfred R. Hearing aid construction. 3,536,861, 10-27-70, Cl. 179-107.

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Dunlop, Adam. Apparatus for use in the manufacture of shell moulds. 3,503,435, 3-31-70, Cl. 164-166.

Dunlop, Adam. Apparatus for use in melting and casting metals. 3,519,061, 7-7-70, Cl. 164-252.

Dunlop, Alexander K.; and Hogenson, Raymond A., to Minnesota Mining and Manufacturing Company. Mechanical timer. 3,550,458, 12-29-70, Cl. 74-3.5

Dunlop, Andrew P.; Rustad, Norman E.; and Sherman, Edward, to Quaker Oats Company, The. Crosslinked polytetrahydrofuran polymers. 3,544,487, 12-1-70, Cl. 260-2.

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Dunlop, James D.; and Bounds, Ronald W., to Communications Satellite Corporation. Third electrode sensing circuit for on-off battery charging. 3,539,899, 11-10-70, Cl. 320-46.

Dunlop, Lawrence J.; and Rohr, Peter, to International Business Machines Corporation. Memory sense system with fast recovery. 3,525,084, 8-18-70, Cl. 340-174.

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Dunman, John P. G.; and Axford, John G., to International Business Machines Corporation. Connector assembly. 3,518,612, 6-30-70, Cl. 339-19.

Dunmire, Paul C. Smoke abatement device. 3,537,239, 11-3-70, Cl. 55-242.

Dunmire, Paul G., to Christy Metal Products Inc. Pipe coupling. 3,517,951, 6-30-70, Cl. 285-110.

Dunmire, Paul G., to Christy Concrete Products Incorporated. Gravity latch for box lid. 3,530,696, 9-29-70, Cl. 70-167.

Dunmire, Paul G., to Christy Metal Products, Inc. Pipe coupling. 3,547,471, 12-15-70, Cl. 285-337.

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Dunn, Benjamin, to Stanley Works, The. Tool hanger assembly. 3,519,238, 7-7-70, Cl. 248-359.

Dunn, Benjamin, to Stanley Works, The. Strapping tools. 3,524,480, 8-18-70, Cl. 140-93.4

Dunn, Dale L., to General Motors Corporation. Battery protection system. 3,543,043, 11-24-70, Cl. 307-18.

Dunn, Donald A., to Cargill, Incorporated. Drum screen for fertilizer. 3,532,276, 10-6-70, Cl. 241-77.

Dunn, Edwin R., to Crown Rubber Company. Process of making solid foams from polymer emulsions. 3,491,033, 1-20-70, Cl. 260-2.5

Dunn, Elman R., to Landis Tool Company. Disc grinder loader and carrier assembly. 3,503,155, 3-31-70, Cl. 51-114.

Dunn, Elman R., to Litton Industries, Inc., mesne. Stepping motor control provisions for machine tool feed mechanism. 3,513,600, 5-26-70, Cl. 51-165.

Dunn, Elman R., to Litton Industries, Inc. Protection means for telescoping members. 3,532,001, 10-6-70, Cl. 74-18.2

Dunn, Elman R., to Litton Industries, Inc. Coolant control for disc grinders. 3,548,549, 12-22-70, Cl. 51-118.

Dunn, George L., to Smith Kline & French Laboratories. 2-Carbalkoxyaminodihydroquinazolines. 3,535,321, 10-20-70, Cl. 260-256.4

Dunn, George L.; and Berthold, Richard Vogt, to Smith Kline & French Laboratories. 8-Acylamino-and 8-carbalkoxyaminopurines. 3,536,711, 10-27-70, Cl. 260-252.

Dunn, George L.; and Hoover, John R. E., to Smith Kline & French Laboratories. Pentacyclooctaneamines. 3,538,160, 11-3-70, Cl. 260-563.

Dunn, George L.; and Hoover, John R. E., to Smith Kline & French Laboratories, Inc. Pentacyclononaneamines. 3,542,868, 11-24-70, Cl. 260-563.

Dunn, Gerald R. Photographic enlarger exposure comparator using test strips. 3,529,522, 9-22-70, Cl. 95-10.

Dunn, Howard E., to Phillips Petroleum Company. Schiff bases of amino-substituted tetrahydrothiophene 1, 1-dioxides. 3,546,216, 12-8-70, Cl. 260-240.

Dunn, James L., Jr., to Dow Chemical Company, The. Method for regenerating a carbon adsorption bed with superheated vapors. 3,494,102, 2-10-70, Cl. 55-62.

Dunn, James L., Jr., to Dow Chemical Company, The. Solvent removal. 3,510,954, 5-12-70, Cl. 34-22.

Dunn, James L., Jr., to Dow Chemical Company, The. Vapor level control for water drying articles with high boiling solvents. 3,541,696, 11-24-70, Cl. 34-27.

Dunn, James L., Jr.; and Renfro, James C., to Dow Chemical Company, The. Indicator composition of tetraethyl ammonium bromide, perchloric acid and crystal violet. 3,528,931, 9-15-70, Cl. 252-408.

Dunn, James L., Jr.; and Renfro, James C., to Dow Chemical Company, The. Inhibitor detection composition. 3,545,928, 12-8-70, Cl. 23-230.

Dunn, John Malcolm, 10% to McCoy, Donald R., and McCoy, Karen Ann. Hand-held belt sander. 3,496,679, 2-24-70, Cl. 51-170.

Dunn, John M. Brazier-grille cleaning tool. 3,487,491, 1-6-70, Cl. 15-111.

Dunn, John P.; and Carroll, Patrick C., to Martin-Marietta Corporation. Method and apparatus for determining the time and location of occurrence of events occurring in space. 3,506,217, 4-14-70, Cl. 244-1.

Dunn, Joseph S.; and Smith, Albert C., Jr., to Eastman Kodak Company. Developing agent dispersions. 3,518,088, 6-30-70, Cl. 96-114.

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Dunn, Luther L., Jr.; and Magnusson, Norval, to Georgia-Pacific Corporation. Process for electrolysis of alkali metal chloride. 3,551,309, 12-29-70, Cl. 204-99.

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Dunn, Michael J. Constant resistance exercise device. 3,511,500, 5-12-70, Cl. 272-79.

Dunn, Peter E., to Rauland Corporation, The. Image projection through rear window of cathode ray tube to display screen. 3,546,518, 12-8-70, Cl. 313-92.

Dunn, Richard P., to Dun-Hot, Inc. Popcorn package. 3,519,439, 7-7-70, Cl. 99-171.

Dunn, Richard; MacInnis, Martin B.; and Mehalchick, Emil J., to Sylvania Electric Products, Inc. Process for producing particulate nickel coated alkaline earth carbonates. 3,535,149, 10-20-70, Cl. 117-100.

Dunn, Robert M. Shadow light. 3,519,237, 7-7-70, Cl. 248-327.

Dunn, Robert M.; and Hadden, David R., Jr., to United States of America, Army. Priority sequencing device. 3,493,939, 2-3-70, Cl. 340-173.

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Dunnington, Gordon Beale; and Fields, Reuben Thomas, to Du Pont de Nemours, E. I., and Company. Extrusion process. 3,517,095, 6-23-70, Cl. 264-176.

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Dunphy, James F.; and Parish, Darrell J., to Du Pont de Nemours, E. I., and Company. Heat-sealable laminar structures of polyimides and methods of laminating. 3,505,168, 4-7-70, Cl. 161-227.

Dunsay, George; and Cohn, Leonard, to Physio-Chem Corporation. Miniature car paint spraying apparatus. 3,543,716, 12-1-70, Cl. 118-6.

Dunsby, Roger. Sheet material for use in building. 3,523,849, 8-11-70, Cl. 156-242.

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Dunshee, Bryant R.; Opie, Joseph W.; and Speech, Steven R., to General Mills, Inc. Reduction of can corrosion and product deterioration of high acid in-can food products. 3,496,859, 2-24-70, Cl. 99-182.

Dunster, James A., to Aerolex Products Limited. Releasable fasteners. 3,521,333, 7-21-70, Cl. 24-230.

Dunston, James M., to United States of America, Army. Safety device for liquid fuel burner. 3,504,687, 4-7-70, Cl. 137-68.

Dunston, James M., to United States of America, Army. Method of making a slotted gas burner head. 3,514,833, 6-2-70, Cl. 29-157.

Dunthorne, Raymond, to Canadian Westinghouse Company Limited. Electrically operated mechanical brake and circuit controlling apparatus with improved brake means. 3,497,789, 2-24-70, Cl. 318-372.

Dunton, John T., to Dresser Industries, Inc. Fire hydrant. 3,506,027, 4-14-70, Cl. 137-307.

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Dunwoody, William B.; and Brown, Marion L., Jr., to Mississippi Chemical Corporation. Concentration process. 3,488,686, 1-6-70, Cl. 159-47.

Dunworth, William P., to Du Pont de Nemours, E. I., and Company. Stabilized distillate fuel oils and additive compositions therefor. 3,490,882, 1-20-70, Cl. 44-73.

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DuPlain, Richard L., to Seaquist Valve Company. Mechanical breakup button. 3,519,210, 7-7-70, Cl. 239-492.

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Eckstrom, Peter M., to Midland-Ross Corporation. Aspirated radiant tube combustion apparatus. 3,521,986, 7-28-70, Cl. 431-157.
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Ecob, Osmond Herbert; and Johnson, Bertram, to Wildt Mellor Bromley Limited. Patterning mechanism for circular knitting machines. 3,512,376, 5-19-70, Cl. 66-14.
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Eddy, Robert T., to Reliance Electric Company. Rotary device. 3,547,565, 12-15-70, Cl. 418-61.
Eddy, William C., Jr., to Industrial Nucleonics Corporation. Engine lubricant aeration gauging method and apparatus. 3,497,034, 2-24-70, Cl. 184-1.
Eddy, William C., Jr., to Industrial Nucleonics Corporation. Method and apparatus for determining excess temperature of a machine component by the use of an inert radioactive gas. 3,530,297, 9-22-70, Cl. 250-83.3
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Eddy, William R., to Phillips Petroleum Company. Protected insulated electrical conduit. 3,503,800, 3-31-70, Cl. 117-218.
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Eden, Jamal S., to Goodrich, B. F., Company, The. Catalyst for preparing unsaturated acids and aldehydes. 3,509,069, 4-28-70, Cl. 252-437.
Eden, Jamal S., to Goodrich, B. F., Company, The. Process for preparing unsaturated nitriles by catalytic ammoxidation of olefins. 3,518,295, 6-30-70, Cl. 260-465.3
Eden, Jamal S., to Goodrich, B. F., Company, The. Catalytic process for preparing unsaturated acids and aldehydes. 3,520,923, 7-21-70, Cl. 260-533.
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Eden, Jamal S., to Goodrich, B. F., Company, The. Oxidation catalyst containing molybdenium oxide, tellurium oxide and a copper phosphate. 3,546,135, 12-8-70, Cl. 252-437.
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Edwards, James W., to Monsanto Company. Apparatus for producing curved electrostatic printing screens. 3,523,502, 8-11-70, Cl. 100-211.

Edwards, James W., to Monsanto Company. Method of making pellucid laminates having an interference filter. 3,523,847, 8-11-70, Cl. 156-99.

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Edwards, John Richard. Disposable syringe. 3,530,858, 9-29-70, Cl. 128-232.

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Edwards, Miles Lowell. Membrane fluid diffusion exchange device. 3,541,595, 11-17-70, Cl. 210-321.

Edwards, Miles Lowell. Membrane fluid diffusion exchange device. 3,547,271, 12-15-70, Cl. 210-321.

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Edwards, Ray C. Finned heat exchange element with slide bars. 3,493,039, 2-3-70, Cl. 165-67.

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Edwards, Richard C., Jr. Bricklaying machine. 3,529,395, 9-22-70, Cl. 52-749.

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Edwards, Stanley John, to British Petroleum Company Limited, The. Containers. 3,498,526, 3-3-70, Cl. 229-44.

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Edwards, Walter Murray; and Maginn, Robert Allen, to Du Pont de Nemours, E. I., and Company. Colored reinforced laminates. 3,509,002, 4-28-70, Cl. 161-6.

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Edwards, William C., to Smith Kline & French Laboratories. Air flow control. 3,504,663, 4-7-70, Cl. 128-2.05

Edwards, William H., to Minnesota Mining and Manufacturing Company. Twist-opening reel container. 3,498,447, 3-3-70, Cl. 206-52.

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Edwardson, Svante Roland, to AB Dentatus. Process for sealing about the rotary shaft of a tool. 3,542,372, 11-24-70, Cl. 277-1.

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Eeles, Robert C.; and Slimm, Victor R. Balanced slide valves. 3,488,184, 1-6-70, Cl. 137-596.

Eeles, Robert C.; and Slimm, Victor R., to Dowty Technical Developments Limited. Balanced slide valves. 3,489,173, 1-13-70, Cl. 137-596.

Eelkema, Herman H. Break-away container. 3,491,907, 1-27-70, Cl. 215-1.

Eells, Rex; and Myers, Ernest L., to Eastman Kodak Company. Vacuum platen for transparent film packaging. 3,490,193, 1-20-70, Cl. 53-22.

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Eerkens, Cornelis. Square pattern irrigation sprinkling device. 3,528,093, 9-8-70, Cl. 239-97.

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Eff, Christian A., to General Electric Company. Method of broiling in an oven. 3,529,973, 9-22-70, Cl. 99-107.

Eff, Christian A.; and Williams, Milton S., Jr., to General Electric Company. Propulsion system for domestic appliance. 3,535,010, 10-20-70, Cl. 312-253.

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Effemey, Harry George, to National Research Development Corporation. Electromagnetic waveguides. 3,492,607, 1-27-70, Cl. 333-95.

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Effron, Edward; and Hochman, Jack M., to Esso Research and Engineering Company. Mixed-phase flow distributor for packed beds. 3,524,731, 8-18-70, Cl. 23-288.

Efimenko, Viktor Ivanovich; and Gorodovsky, Alexander Fedorovich. Liquid damper for measuring instruments. 3,494,203, 2-10-70, Cl. 73-430.

Efimenko, Viktor Ivanovich; Iljunin, Konstantin Konstantinovich; and Gorodovsky, Alexandr Fedorovich. Measuring instrument having a movable iron member. 3,528,010, 9-8-70, Cl. 324-146.

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Egan, Clark J., to Chevron Research Company. Production of high quality jet fuel. 3,551,326, 12-29-70, Cl. 208-93.

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Egan, Raymond D., to Granger Associates. Ionosphere sounder system. 3,495,176, 2-10-70, Cl. 325-67.

Egan, Richard R.; Lampson, Sidney B.; and MacDonald, Ira A., to Ashland Oil & Refining Company. Shortenings containing ethoxylated partial glycerol esters. 3,490,918, 1-20-70, Cl. 99-118.

Egan, Richard R.; and Smiens, Leon D., to Ashland Oil & Refining Company. Built detergents containing nonionic polyoxyalkylene surface active materials. 3,507,798, 4-21-70, Cl. 252-135.

Egan, Richard T.; and Roberts, Lawrence M., to Research-Cottrell, Inc. Wet bottom precipitator. 3,509,695, 5-5-70, Cl. 55-120.

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Egbert, Lawrence E.; Swan, Fred W.; and Tilmann, Norman E. Automatic tree trimming mechanism. 3,496,709, 2-24-70, Cl. 56-237.

Egbert, Robert B., to Badger Company, Inc., The. Method of producing phthalic anhydride. 3,535,345, 10-20-70, Cl. 260-346.4

Egdemir, Enis C. Timed car starter. 3,538,898, 11-10-70, Cl. 123-179.

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Eggensperger, Heinz; Andreas, Holger; Franzen, Volker; and Neubert, Gunther, to Deutsche Advance Produktion G.m.b.H. Organotin composition and resins stabilized therewith. 3,534,121, 10-13-70, Cl. 260-880.

Eggensperger, Heinz; Franzen, Volker; and Stephan, Hans, to Deutsche Advance Produktion G.m.b.H. Stabilization of halogenated vinyl resins. 3,518,224, 6-30-70, Cl. 260-45.85

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Egger, Hanns. Process and combustible body for heating and/or igniting objects. 3,513,827, 5-26-70, Cl. 126-262.

Eggers, Carter J. Simulated lock game. 3,532,343, 10-6-70, Cl. 273-153.

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Eggert, Glenn J.; and Nicholls, Mervyn E., to Houdaille Industries, Inc., mesne. Automatic buffing control systems. 3,546,730, 12-15-70, Cl. 15-102.

Eggert, Joachim; Tronnier, Ernst; and Uberhagen, Fritz, to Voigtlander A.G. Telephoto lens. 3,524,700, 8-18-70, Cl. 350-215.

Eggert, Walter S., Jr., to Budd Company, The. Window sash construction. 3,503,168, 3-31-70, Cl. 52-208.

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Egitto, John L.; Bilello, Pasquale; and Schwacke, Frederick H., Jr., to Inmont Corporation. Method of producing blush coated fabrics of superior adhesion. 3,505,096, 4-7-70, Cl. 117-56.

Egli, Alwin; and Rothenbach, Theo, to Schweizerische Industrie-Gesellschaft. Devices for evacuating and/or filling with gas and sealing shut filled containers. 3,501,888, 3-24-70, Cl. 53-86.

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Eilers, Louis H.; and Stout, Caleb M., to Dow Chemical Company, The. Temporary diverting agent and use thereof in treatment of subterranean strata. 3,500,929, 3-17-70, Cl. 166-295.

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Einstein, Harry. Photoelectric gas monitor having either reflective or absorbing plate at one end of sample tube. 3,541,336, 11-17-70, Cl. 250-218.

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Eisby, Axel Verner. Electrical apparatus for treating surfaces of work pieces to improve the adhesion of printing inks or adhesives thereto. 3,514,393, 5-26-70, Cl. 204-312.

Eisel, Robert J.; Greenough, William B., III; and Kellogg, Robert M., to United States of America, Health, Education and Welfare. Seal means for blood separator and the like. 3,519,201, 7-7-70, Cl. 233-21.

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Eisenberg, M F., to Hewlett-Packard Company. Means for limiting current in a power supply amplifier. 3,508,162, 4-21-70, Cl. 330-11.

Eisenberg, Morris, to Electrochimica Corporation. Electrochemical cell having barrier with microporous openings. 3,506,493, 4-14-70, Cl. 136-86.

Eisenberg, Morris, to Electrochimica Corporation. Electrochemical cell with non-aqueous electrolyte. 3,508,966, 4-28-70, Cl. 136-6.

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Eisenstadt, Daniel J.; and Smith, Delmer P., to Airpax Electronics Incorporated. Error compensated frequency discriminator system. 3,497,632, 2-24-70, Cl. 179-100.1

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Eishold, Horst-Gunter, to Metallgesellschaft Aktiengesellschaft. Method and apparatus for control of high voltage corona discharge in electrostatic dust separators. 3,488,675, 1-6-70, Cl. 66-2.

Eishold, Horst-Gunter; and Steuernagel, Walter, to Metallgesellschaft Aktiengesellschaft. Ground for electrostatic dust collector electrode. 3,513,635, 5-26-70, Cl. 55-155.

Eisler, Charles, to Eisler Engineering Co. Centering fixture. 3,514,093, 5-26-70, Cl. 269-287.

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Eisler, Paul. Packaging method. 3,516,218, 6-23-70, Cl. 53-25.

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Eisler, Paul. Hair curling and straightening means including an electrical resistance heating surface film. 3,523,542, 8-11-70, Cl. 132-33.

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Eisler, Paul. Electrical space heating system. 3,539,768, 11-10-70, Cl. 219-213.

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Eisler, Paul. Method of separating portions of a transported body by resistance heating. 3,544,762, 12-1-70, Cl. 219-200.

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Eisses, Reinhart Charles Willem, to U.S. Philips Corporation, mesne. Method of manufacturing an implosion-free television display tube. 3,508,310, 4-28-70, Cl. 29-25.13

Eissler, Horst, to Gebruder Giulini G.m.b.H. N,N-methyl cyclohexyl-2-ethyl-3,3-diphenyl- propene-(2)-yl-amine and the salts thereof. 3,489,760, 1-13-70, Cl. 260-295.5

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Eklund, Gosta Ulf; and Johansson, Kurt Hjalmar, to International Standard Electric Corporation. Breakdown detecting arrangement for transmission systems with noise. 3,515,819, 6-2-70, Cl. 179-170.

Eklund, Phillip R. Cryogenic refrigerator compressor improvement. 3,515,034, 6-2-70, Cl. 92-152.

Eklund, Phillip R., to United States of America, Air Force. Method of heat treating to produce a wear- resistant and low friction surface. 3,517,974, 6-30-70, Cl. 308-187.

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Eklund, Phillip R.; and Campbell, Gabe L. Method of joining and fabricating hollow members for use in rolling bearings. 3,536,368, 10-27-70, Cl. 308-188.

Ekman, Adolphe. Apparatus for indicating safe driving. 3,504,337, 3-31-70, Cl. 340-53.

Ekman, Bjorn A. O. Vibrator for dental purposes. 3,513,550, 5-26-70, Cl. 32-54.

Ekman, Frank O., to National Dust Collector Corporation. Method and apparatus for controlling fume and dust emissions from cupola furnaces and the like. 3,499,264, 3-10-70, Cl. 55-90.

Ekman, Frank. Filter bed for dust collector. 3,488,039, 1-6-70, Cl. 261-81.

Ekman, Lars Gustaf. Tiltable boiling or bathing structure. 3,534,748, 10-20-70, Cl. 134-118.

Ekman, Nils Per, to Aktiebolaget Scania-Vabis. Outboard propelling system comprising an adjustable propeller. 3,534,703, 10-20-70, Cl. 115-35.

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Ekstrom, Ake, to Allamanna Svenska Elektriska Aktiebolaget. Control system for a static converter connecting a DC network to an AC network. 3,551,778, 12-29-70, Cl. 321-5.

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Ekstrom, Gosta Ivar; and Blomberg, Jarl Joel, to Atlas Copco Aktiebolag. Tool retainer. 3,525,531, 8-25-70, Cl. 279-19.6

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Ellis, Alfred Brian Edwin, to Marconi Company Limited, The. Electrical position resolver arrangements. 3,497,617, 2-24-70, Cl. 178-19.

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Ellis, Benjamin C., Jr.; Ramsey, Raymond B.; and Swanson, Robert A., to Bell Telephone Laboratories, Incorporated. Wire connecting blocks. 3,496,522, 2-17-70, Cl. 339-99.

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Ellis, Jacob P. Urinary collection device. 3,512,185, 5-19-70, Cl. 64-110.

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Ellis, Linus M., to Du Pont de Nemours, E. I., and Company. Plant control with 5-oxo-1,4,2-dioxazines. 3,529,952, 9-22-70, Cl. 71-88.

Ellis, Myron P.; Czubak, Albin S.; and McDonald, Keith A., to Micromatic Hone Corporation. Gear honing machine. 3,525,178, 8-25-70, Cl. 51-3.

Ellis, Richard T.; and Fischell, Robert E., to United States of America, Navy. Satellite spin control system. 3,489,372, 1-13-70, Cl. 244-1.

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Ellis, Robert Hunter, to United Engineering and Foundry Company. Automatic gauge control for rolling mills. 3,492,848, 2-3-70, Cl. 72-21.

Ellis, Robert. Surf-board construction and method of making same. 3,514,798, 6-2-70, Cl. 9-310.

Ellis, Robert. Automatically adjusting skeg for surfboards. 3,516,100, 6-23-70, Cl. 9-310.

Ellis, Robert. Airborne antenna coupled to adjustable helical counterpoise. 3,522,609, 8-4-70, Cl. 343-703.

Ellis, Roger H., to Raychem Corporation. Heat recoverable connector. 3,525,799, 8-25-70, Cl. 174-84.

Ellis, Roger H.; and Grafton, Frederick M., to Raychem Corporation. Connector for termination of coaxial cable. 3,541,495, 11-17-70, Cl. 339-177.

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Ellman, Irving A. Amalgam packer attachment for dental handpiece. 3,516,161, 6-23-70, Cl. 32-53.

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Ellsworth, James P.; and Thomas, Glenn R., to Westinghouse Electric Corporation. Circuit breaker with improved venting means and arc extinguishing structure. 3,506,799, 4-14-70, Cl. 200-147.

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Ellzey, Samuel E., Jr.; Guice; Wilma A.; and Novak, Arthur F., to United States of America. Process for preparing pyridinium betaines and derivatives. 3,509,165, 4-28-70, Cl. 260-295.

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Cacka, Zdenek; and Elmore, Glenn V.,3,518,130.

Elmore, Harry S. Pole elevator. 3,508,632, 4-28-70, Cl. 187-27.

Elmore, J. Russell, to Torrington Company, The. Cage with seals for bearings and manufacture thereof. 3,524,237, 8-18-70, Cl. 29-148.4

Elmore, J. Russell; and Cowles, John H., to Torrington Company, The. Finger-type cage for overrunning clutch. 3,537,554, 11-3-70, Cl. 192-45.

Elmore, Robert Eugene. Avco Corporation Charged particle generator yielding a mono- energetic ion beam. 3,514,666, 5-26-70, Cl. 315-111.

Elmquist, Lyle F.: *See—*
Keen, James L.; and Elmquist, Lyle F.,3,510,246.
Peterson, Lowell E.; and Elmquist, Lyle F.,3,506,480.
Thielen, Jean B.; Keen, James L.; and Elmquist, Lyle F.,3,510,248.

Elms, Robert T.: *See—*
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Elmwood Liquid Products, Inc.: *See—*
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Elmwood Sensors, Inc.: *See—*
Colavecchio, Robert J., 3,496,511.

Elmy, Richard A., to Westinghouse Electric Corporation. Clothes dryer with pilot flame. 3,489,399, 1-13-70, Cl. 263-10.

Eloranta, Vaito K., to Polaroid Corporation. Photographic apparatus. 3,496,850, 2-24-70, Cl. 95-13.

Eloranta, Vaito K., to Polaroid Corporation. Camera shutter and diaphragm apparatus. 3,511,157, 5-12-70, Cl. 95-53.

Elox Corporation: *See—*
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Sennowitz, Kurt H., 3,513,837.

Elox Inc.: *See—*
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Sennowitz, Kurt H., 3,524,037.
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Sennowitz, Kurt H., 3,531,616.
Sennowitz, Kurt H., 3,542,989.
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Elpern, Bill; and Youlus, Joshua B., to USV Pharmaceutical Corporation. Indanyl thiocarbamates. 3,509,200, 4-28-70, Cl. 260-455.

Elrod, Charles W., to United States of America, Air Force. Pressue relief valve assembly. 3,517,692, 6-30-70, Cl. 137-557.

Els, Hans; Furst, Andor; and Muller, Marcel, to Hoffmann-La Roche Inc.16α-Thio-9$\beta\alpha$-Δ^4-pregnene-3-ones and intermediates in the preparation thereof. 3,489,748, 1-13-70, Cl. 260-239.55

Elsasser, Robert R., to Timkin Roller Bearing Company, The. Apparatus for producing shaped tubing and bars. 3,488,680, 1-6-70, Cl. 72-214.

Elsby, Thomas W., to Motorola, Inc. Process for depositing a tantalum oxide containing coating. 3,502,502, 3-24-70, Cl. 117-201.

Elsenson, Herbert Ford: *See—*
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Elsing, John W.: *See—*
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Elsken, James C.: *See—*
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Elslager, Edward Faith; Worth, Donald Francis; and Howells, John David, to Parke, Davis & Company. 2H[1]benzothiopyrano[4,3,2-cd]indazole compounds. 3,505,341, 4-7-70, Cl. 260-293.4

Elsner, Hans: *See—*
Behrens, Herbert; and Elsner, Hans,3,548,993.

Elson, Arthur M., to Acme-Hamilton Manufacturing Corporation. Reinforced flexible hose. 3,500,867, 3-17-70, Cl. 138-125.

Elson, George Wynne; and Peterson, Andrew Robert, to Imperial Chemical Industries Limited. Process for the separation of gibberellins. 3,496,194, 2-17-70, Cl. 260-343.3

Elson, John P.: *See—*
Peterson, Roger A.; Elson, John P.; Smith, Charles R.; and Slagell, Lloyd D.,3,519,047.

Elste, Edwin S.: *See—*
Shaw, John S.; Dostel, John J.; White, Donald K.; Elste, Edwin S.; Kellogg, John F.; and O'Neale, John D.,3,509,324.

Elsters: *See—*
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Elswick, Jerry C. Billiard cue with guide member. 3,534,959, 10-20-70, Cl. 273-68.

Elsworth, Robert M., to General Electric Company. Impregnation of electrical coils using resistance heating and temperature sensing means. 3,527,662, 9-8-70, Cl. 117-232.

Eltec, Inc.: *See—*
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Elton, Derek A. L.; Harlow, Robert J.; and Tracy, John A., to Loewy Engineering Company Limited, The. Rolling mill with roll-deflecting attachment. 3,528,273, 9-15-70, Cl. 72-237.

Elton Industries, Inc.: *See—*
Nolte, Albert C., Jr., 3,500,313.
Seitz, Russell, 3,533,013.

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Kerrigan, James Charles; and Diello, William, 3,497,788.
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Eltze, Ulrich: *See—*
Forster, Hans-Joachim M.; and Eltze, Ulrich,3,501,979.
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Elvis, Peter; and Houcke, George P., to Bell Telephone Laboratories, Incorporated. Data signal distorting generator. 3,526,713, 9-1-70, Cl. 178-69.

Elwell, Charles A., to Toy Development Center, Inc., The. Sound reproducer and stereoscope combination. 3,524,272, 8-18-70, Cl. 40-28.1

Elwell, Percy J.: *See—*
Wallace, Floyd E.; and Elwell, Percy J.,3,488,026.

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Elwood Industries, Inc.: *See—*
Pascus, Arnold W.; and Boehm, Edmund, 3,495,757.
Pascus Arnold W.; and Boehm, Edmund, 3,510,047.

Ely, Berten E., Jr.; and Clement, Ira T., to Pennsylvania Fluorocarbon Company, Inc. FEP 160 fluorocarbon tubing and process. 3,500,870, 3-17-70, Cl. 138-177.

Ely, Charles M., to Diamond Shamrock Corporation. Iron salt-antibiotic compositions and use thereof. 3,491,187, 1-20-70, Cl. 424-181.

Ely, Richard Anthony; and Moseley, Andrew Squire, to Permali Limited. Stay member, tension rod and end fitting. 3,514,140, 5-26-70, Cl. 287-124.

Ely, Robert G. Friction control for cable drums. 3,537,549, 11-3-70, Cl. 188-77.

Ely, Robert G. Stop for reciprocably coupled members. 3,537,550, 11-3-70, Cl. 188-110.

Ely, Robert J., to Abex Corporation. Method of repairing casting defects. 3,487,530, 1-6-70, Cl. 29-402.

Ely, William G.: *See—*
Briskey, Robert J.; Ely, William G.; and Wruk, Kenneth R.,3,509,289.

Elzer, Bernard J. Display device. 3,494,056, 2-10-70, Cl. 40-2.

Elzey, Paul B., to Kalamazoo Plastics Company. Expanded plastic container having rigid internally press-fit cover. 3,491,914, 1-27-70, Cl. 220-60.

Elzinga, Gerrit Johannes: *See—*
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Elzner, Woodrow M. Drain cleaning device. 3,537,113, 11-3-70, Cl. 4-256.

Em, Alexei Pavlovich: *See—*
Khitrik, Spiridon Iosipovich; Gasik, Mikhail Ivanovich; and Em, Alexei Pavlovich,3,523,021.

Em Roc Inc.: *See—*
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Emanuels, Erwin Jacob, to De Staat der Nederlanden, Ten Deze Vertegenwoordigd Door de Directeur-Generaal der Posterijen, Telegrafie en Telefonie. Convertor for transmitting uninterrupted Morse code signals. 3,496,294, 2-17-70, Cl. 178-79.

Emanuelson, Roger C.; and Witherell, William F., to United Aircraft Corporation. Composite metal article having an intermediate bonding layer of nickel aluminide. 3,545,944, 12-8-70, Cl. 29-197.

Emary, Robert J.: *See—*
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Emary, Robert J., to Gilford Instrument Laboratories, Inc. Fluid sample flow cell. 3,515,491, 6-2-70, Cl. 356-246.

Emaus, Thomas H., to Jacobs, F. L., Co. Ash receptacle for automobiles. 3,521,938, 7-28-70, Cl. 312-246.

Ember, George, to Standard Oil Company. Two stage oxidation. 3,532,746, 10-6-70, Cl. 260-524.

Ember, George; Hannemann, Donald E.; Darin, John K.; and Zimmerschied, Wilford J., to Standard Oil Company (Indiana). Production of aromatic tricarboxylic acids having only two vicinal carboxylic acid groups. 3,491,144, 1-20-70, Cl. 260-524.

Emberson, John Ernest. Clamp. 3,537,150, 11-3-70, Cl. 24-81.

Embley, Ronald W., to Electronic Associates Inc. Log multiplier with logarithmic function generator connected in feedback loop of operational amplifier. 3,532,868, 10-6-70, Cl. 235-194.

Embley, Ronald W., to Electronic Associates Inc. Feed forward amplifier. 3,533,004, 10-6-70, Cl. 330-21.

Embling, Kenneth H., to Photain Controls Limited. Photo-electric or similar control or detection devices. 3,509,359, 4-28-70, Cl. 307-117.

Embree, Milton L.; and Lane, William L., to Bell Telephone Laboratories, Incorporated. Level detector having visual indicator lock-up means. 3,510,771, 5-5-70, Cl. 324-122.

Embree, Peter: *See—*
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Embree, Peter, to Texas Instruments, Incorporated. Method of and apparatus for stocking electrical seismic traces. 3,530,430, 9-22-70, Cl. 340-15.5

Embury, Lloyd E. Telephone actuating alarm assembly. 3,546,382, 12-8-70, Cl. 179-5.

Emco Wheaton, Inc.: *See—*
Slawinski, Richard C.; and Meyer, William, 3,520,510.

Emde, Gunter, to Bolkow Gesellschaft mit beschrankter Haftung. Static counter with simplified signal input. 3,548,167, 12-15-70, Cl. 235-92.

Emeis, Reimer, to Siemens Aktiengesellschaft. Apparatus for indiffusing impurity in semiconductor members. 3,492,969, 2-3-70, Cl. 118-49.1

Emerick, Lloyd C., to Sylvania Electric Products, Inc. Insulator heater coating for heater-cathode assembly. 3,500,454, 3-10-70, Cl. 313-340.

Emerick, Robert David. Gun carrier. 3,501,074, 3-17-70, Cl. 224-1.

Emerick, Robert M.: *See—*
Becht, Cletus A.; Emerick, Robert M.; Horton, James A.; Mount, James E.; and O'Connor, Roderic H.,3,549,803.

Emerson, Carl D.: *See—*
Aichenegg, Paul C.; and Emerson, Carl D.,3,529,025.

Emerson, Christopher P. Tree felling device. 3,548,899, 12-22-70, Cl. 144-309.

Emerson, David E., to United States of America, Interior. Method and apparatus for separating neon from a mixture of gases. 3,517,521, 6-30-70, Cl. 62-12.

Emerson Electric Co.: *See—*
Brundage, Richard B., 3,492,455.
Brundage, Robert W., 3,517,507.
Brundage, Robert Wesley, 3,551,079.
Brundage, Robert Wesley, 3,551,081.
Chalfant, Edward J.; and Janik, Anton J., 3,526,411.
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Gundlach, Philip M.; and Munson, Robert D., 3,514,639.
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Jost, Walter P.; and Palmer, John A., 3,523,272.
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Meyer, Carl X., 3,549,879.
Meyer, Elwyn A.; and Brownfield, Charles L., 3,498,178.
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Emerson, Herff C., to Rohr Corporation. Rocket nozzle structure. 3,537,646, 11-3-70, Cl. 239-265.15

Emerson, Kenneth C.; Martin, Kenneth G.; and Knemeyer, Siegfried, to Collins Radio Company. Aircraft flight director instrument. 3,529,283, 9-15-70, Cl. 340-27.

Emerson, Paul D., to Monsanto Company. Multiple card chains for jacquard loom. 3,504,711, 4-7-70, Cl. 139-59.

Emerson, Reginald S., to Hartridge, Leslie, Limited. Apparatus for testing engine fuel injectors. 3,527,089, 9-8-70, Cl. 73-119.

Emerson, Reginald S.; and Taylor, Cecil I. Apparatus for testing fuel injection nozzles of compression ignition engines. 3,511,087, 5-12-70, Cl. 73-119.

Emerson, Wayne C., to Acme Electric Corporation. Constant voltage transformer with core gap at primary end. 3,521,152, 7-21-70, Cl. 323-60.

Emerson, William E.: *See—*
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Dorfman, Edwin; and Emerson, William E.,3,544,618.
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Emerson, William E.; and Dorfman, Edwin, to Hooker Chemical Corporation. Perfluoroalkyl-s-triazines. 3,523,118, 8-4-70, Cl. 260-248.

Emerson, William James: *See—*
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Emerson, William J.; and Linam, William C., to Phillips Petroleum Company. Nurser package. 3,523,026, 8-4-70, Cl. 99-171.

Emerson, William L.: *See—*
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Emery, A. H., Company: *See—*
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Emery, Alvin T.: *See—*
Ruthel, Walter W.; and Emery, Alvin T.,3,493,487.

Emery, Arthur R., to Hi-G, Incorporated. Method and means for controlling the path of a beam of electrically charged particles. 3,492,456, 1-27-70, Cl. 219-121.

Emery, Edward M.; and Gasser, Gerald M., to Monsanto Company. Method and apparatus for chlorinated biphenyl analysis. 3,520,108, 7-14-70, Cl. 55-67.

Emery Industries, Inc.: *See—*
Aylesworth, Robert D.; Hilton, Thomas B.; Froehlich, Philip A.; and Rodenberg, Herbert G., 3,501,554.
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Holtman, Dennis Charles, 3,518,281.
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Van Tuyle, Robert W., 3,544,503.

Emery, Raymen F.: *See—*
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Emery, Robert B.; and Davis, Gail F., to Halliburton Company. Pressure vessel assembly including a welded lid. 3,514,009, 5-26-70, Cl. 220-32.

Emery, Robert B.: *See—*
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Emery, Robert D. Multiple stage sequential escapement mechanism. 3,487,700, 1-6-70, Cl. 74-3.52

Emery, William M. Bath tub water regulator. 3,497,878, 3-3-70, Cl. 4-206.

Emhart Corporation: *See—*
Balducci, Walter O., 3,530,695.
Brennan, James H., 3,499,295.
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Hand, Albert E.; and Miller, Theodore H., 3,500,884.
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E.M.I.-Cossor Electronics Limited: *See—*
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Emich, Karl H.: *See—*
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Emidy, Thomas J.; Simson, Walter H.; and Thorington, Luke, to Duro-Test Corporation. Dual cathode for fluorescent lamps. 3,504,218, 3-31-70, Cl. 313-212.

Emig, Denny L.: *See—*
Bosco, Andrew J.; and Emig, Denny L.,3,494,033.

Emig, Werner; Hoglund, Roy; and Carlson, Gustav E., to Consolidated Cigar Corporation. Cigar shaping and tipping apparatus. 3,495,600, 2-17-70, Cl. 131-88.

Eminger, Robert J., to Fort Wayne Tool & Die, Inc. Apparatus for winding multi-turn, single layer coils. 3,538,959, 11-10-70, Cl. 140-92.1

Emke, Cornelis A., to Cascade Corporation. Slack reducer for flexible lines. 3,511,263, 5-12-70, Cl. 137-355.17

Emke, Cornelis A., to Cascade Corporation, mesne. Lift truck with a pivotal, shiftable and tiltable mast. 3,515,301, 6-2-70, Cl. 214-674.

Emley, Philip W.: *See—*
Eck, Robert N.; Emley, Philip W.; Grams, Allan E.; and Kleinert, Karl H.,3,514,671.

Emmel, Henry J.: *See—*
Chisholm, James J.; and Emmel, Henry J.,3,523,748.

Emmel, Leroy L.; and Alvarez, William, to Haveg Industries, Inc. Method of making flat electrical conductor cable. 3,513,045, 5-19-70, Cl. 156-55.

Emmenegger, Hans: *See—*
Renz, Jany; von Wartburg, Albert; Angliker, Emil; and Emmenegger, Hans,3,502,770.

Emmerich, Heinz, to Solo Kleinmotoren GmbH. Lawnmower. 3,521,434, 7-21-70, Cl. 56-25.4

Emmerling, Werner: *See—*
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Emmerson, Calvin W., to General Motors Corporation. Turbine vane. 3,529,902, 9-22-70, Cl. 415-115.

Emmerson, John O. Metal seal construction. 3,490,777, 1-20-70, Cl. 277-206.

Emmert, Reinhold, to Grundig E.M.V., Elektro Mechanische Versuchsanstalt Inh., Max Grundig. Tape recording and reproducing apparatus with automatic motor arresting or reversing means. 3,511,451, 5-12-70, Cl. 242-200.

Emmert, Richard G.: *See—*
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Emmett, John R.: *See—*
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Emmett, Patrick Alfred: *See—*
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Emmett, Robert C., Jr.; Thompson, Robert B.; Wegener, Willi A.; and Abell, Leo M., to Envirotech Corporation. Washing apparatus for finely divided materials. 3,527,573, 9-8-70, Cl. 23-270.

Emmi, Salvatore, to GAF Corporation. Hardening agents for gelatine coating compositions. 3,505,071, 4-7-70, Cl. 96-111.

Emmi, Salvatore, to GAF Corporation. 3,4 Dichloro-2-furanones as gelating hardening agents. 3,531,292, 9-29-70, Cl. 96-111.

Emmi, Salvatore, to GAF Corporation. 2,4,6 Trichloropyrimidine hardening agents for gelatin. 3,542,549, 11-24-70, Cl. 96-63.

Emmons, Albert H., to Dow Chemical Company, The. Process for making alkylene carbonates. 3,535,342, 10-20-70, Cl. 260-340.2

Emmons, Albert H.; and Frevel, Ludo K., to Dow Chemical Company, The. Process for making alkylene carbonates. 3,535,341, 10-20-70, Cl. 260-340.2

Emmons, Clayton M.: *See—*
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Emmons, Donald L.: *See—*
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Emmons, George Harvey. Foldable ladder. 3,540,549, 11-17-70, Cl. 182-169.

Emmons, Glenn L. Combined vehicle and exercising device. 3,513,928, 5-26-70, Cl. 180-65.

Emmons, Harold L.; and Heinze, Lewis O., to Smith, A. O., Corporation. Inductive core device and method of making the same. 3,512,902, 5-19-70, Cl. 417-371.

Emmons, Paul C. Therapeutic and/or rehabilitation apparatus. 3,538,911, 11-10-70, Cl. 128-25.

Emmons, Stephen P.: *See—*
Alexander, Earl G.; Emmons, Stephen P.; and Kilby, Jack S.,3,496,333.

Emmons, William D., to Rohm & Haas Company. Acryloxyalkyloxyalkyl ketimines and aldimines, polymers thereof, primary amine monomers and polymers, and processes for producing the monomeric and polymeric imines and amines. 3,497,485, 2-24-70, Cl. 260-86.1

Emmons, William D., to Rohm & Haas Company. Sulfonic alkylene esters of itaconic and alpha- methylene glutaric acids and homopolymers thereof. 3,551,479, 12-29-70, Cl. 260-485.

Emmons, William D.; and Frank, George A., to Rohm & Haas Company. Crosslinking polymerizable surfactants. 3,541,138, 11-17-70, Cl. 260-485.

Emmons, William N.: *See—*
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Emmott, John T.; Lesh, Nathan G.; and Stevens, Mead F., to Bell Telephone Laboratories, Incorporated. Thin film adjustable attenuator with S-shaped bifurcated contacts. 3,551,872, 12-29-70, Cl. 338-202.

Emmrich, Rainer: *See—*
Bilz, Helfried; Voigt, Jurgen; Gobel, Wolfgang; Hahn, Christian; and Emmrich, Rainer,3,530,821.

Emneus, Nils I. Arne; and Sten, Arne O., to Pharmacia Fine Chemicals AB. Process for enriching milk with proteins. 3,503,752, 3-31-70, Cl. 99-54.

Emneus, Nils Ingvar Arne; and Flodin, Per Gustaf Magnus, to Pharmacia Fine Chemicals AB. Chromatographic separation employing a gel bed. 3,510,271, 5-5-70, Cl. 23-312.

Emond, Jean Claude Joseph Oscar Demond, to U.S. Philips Corporation, mesne. Integrated circuit. 3,488,528, 1-6-70, Cl. 307-303.

Emore, Clifford L.: *See—*
Raney, Melvin A.; Emore, Clifford L.; Brown, Donald D.; Young, Richard C.; and Kruer, Harold H.,3,518,945.

Emoto, Masayuki: *See—*
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Empire Oil Tool Company: *See—*
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Empire Piece Dyeing & Finishing Co., Inc.: *See—*
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Empire Switchboard Co., Inc.: *See—*
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Enders, Heinz Werner; and Deiner, Hans, to Chemische Fabrik Pfersee, G.m.b.H. Manufacture of melamine derivatives and products resulting therefrom. 3,506,661, 4-14-70, Cl. 260-249.

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Endo, Hiroshi; Tokoyoda, Kazuo; Saito, Yoshinori; and Fujiu, Takemi, to Suehiro Sen-I Kogyo Kabushiki Kaisha. Process for making synthetic suedes. 3,532,529, 10-6-70, Cl. 117-7.

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Endo, Sukeharu, to Ishikawajima-Harima Jukogyo Kabushiki Kaisha. Annealing furnace for coil material. 3,516,649, 6-23-70, Cl. 263-40.

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Enemark, Arne F., to Danfoss A/S. Electric motor, pump and blower oil burner unit. 3,521,978, 7-28-70, Cl. 417-201.

Enemark, Arne F., to Danfoss A/S. Oil-feed equipment operable as a single-line or double-line system. 3,531,220, 9-29-70, Cl. 417-310.

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Enemark, Arne F.; Vind, Holger V.; and Schack, Andreas T., to Danfoss A/S. Thermal -starting device for a single-phase asynchronous motor. 3,521,138, 7-21-70, Cl. 318-221.

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Eng, Jackson, to Esso Research and Engineering Company. Process for hydrogenating propylene. 3,509,226, 4-28-70, Cl. 260-676.

Eng, Joseph W.; and Lin, Stanley C. F., to Electro-Sonic Pollution Control Corporation. Method of and apparatus for purifying polluted gases. 3,494,099, 2-10-70, Cl. 55-8.

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Enge, Harald A., to High Voltage Engineering Corporation. Non-dispersive magnetic deflection method. 3,516,037, 6-2-70, Cl. 335-210.

Enge, Harald A., to Deuteron, Inc. Magnetic spectrograph having means for correcting for aberrations in two mutually perpendicular directions. 3,541,328, 11-17-70, Cl. 250-41.9

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Enge, Harald A.; and Smith, Donald L., to United States of America, Atomic Energy Commission. Double focusing spectrograph employing a rotatable quadrupole lens to minimize doppler broadening. 3,524,056, 8-11-70, Cl. 250-41.9

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Engel, Joseph C.; Elms, Robert T.; and Kappenhagen, George A., to Westinghouse Electric Corporation. Starting and operating circuit for any of a plurality of different discharge lamps. 3,519,881, 7-7-70, Cl. 315-236.

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Engel, Lawrence J.; Gianni, Michael H.; and Wiener, Charles, to Esso Research and Engineering Company. Ethers containing difluoramino groups. 3,548,004, 12-15-70, Cl. 260-584.

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Engelbrecht, Harlen J. H., to American Home Products Corporation. Method of producing jowl abscess vaccine. 3,529,056, 9-15-70, Cl. 424-92.

Engelbrecht, Ludwig; and Madlener, Edwin, to Maschinenfabrik Augsburg-Nurnberg A.G. Test piece centering means for stress-strain machines. 3,498,121, 3-3-70, Cl. 73-103.

Engelbrecht, Rudolf S., to Bell Telephone Laboratories, Incorporated. Increased efficiency bulk effect oscillators. 3,537,032, 10-27-70, Cl. 331-107.

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Engelbrecht, Wilhelm, to Hoesch Maschinenfabrik Deutschland AG. Tool mount for turning lathes. 3,520,217, 7-14-70, Cl. 82-24.

Engeldrum, Philip J., to Photo Mechanics Corporation. Camera back adapter plate. 3,491,671, 1-27-70, Cl. 95-31.

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Engeler, William E.; and Garfinkel, Marvin, to General Electric Company. Miniature electromechanical filter with magnetic drive. 3,517,349, 6-23-70, Cl. 333-72.

Engeler, William E.; and Garfinkel, Marvin, to General Electric Company. Magnetically driven electromechanical filter with cantilevered resonator and variable Q. 3,533,022, 10-6-70, Cl. 333-71.

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Thominet, Michel Leon; and Engelhardt, Edward L.,3,495,008.
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Engelsmann, Dieter; and Hackenberg, Hubert, to Agfa-Gevaert Aktiengesellschaft. Shutter for photographic cameras. 3,509,805, 5-5-70, Cl. 95-10.
Engelsmann, Dieter; and Hackenberg, Hubert, to Agfa-Gevaert Aktiengesellschaft. Electromagnetically operated shutter for photographic camera. 3,526,182, 9-1-70, Cl. 95-60.
Engelsmann, Dieter; Hackenberg, Hubert; and Karl, Horst, to Agfa-Gevaert Aktiengesellschaft. Camera for indoor and outdoor photography. 3,505,936, 4-14-70, Cl. 95-10.
Engelsmann, Dieter; Landbrecht, Franz; and Zobel, Siegfried, to Agfa-Gevaert Aktiengesellschaft. Rotary socket for multiple flash-bulb holders. 3,520,237, 7-14-70, Cl. 95-11.
Engelsmann, Dieter; and Schroder, Rolf, to Agfa-Gevaert Aktiengesellschaft. Exposure control apparatus for photographic camera. 3,537,366, 11-3-70, Cl. 95-10.
Engelsmann, Dieter; Schroder, Rolf; Hackenberg, Hubert; and Fliesser, Engelbert, to Agfa-Gevaert Aktiengesellschaft. Flash unit. 3,514,587, 5-26-70, Cl. 240-1.3
Engelsmann, Dieter; and Zattler, Kurt, to Agfa-Gevaert Aktiengesellschaft. Photographic camera with built-in exposure meter. 3,495,513, 2-17-70, Cl. 95-10.
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Engesser, Rudolf; Tuch, Richard; Rausch, Werner; and Menzer, Winfried, to Hooker Chemical Corporation. Coating process for ferrous metal surfaces. 3,533,859, 10-13-70, Cl. 148-6.15
Engesser, William F. Sports training aid. 3,487,549, 1-6-70, Cl. 33-46.
Engh, Robert O., to Honeywell Inc. Self checking intruder and fire detector units and system. 3,543,260, 11-24-70, Cl. 340-228.
Engholm, Robert. Track and tie laying kit. 3,494,042, 2-10-70, Cl. 33-174.
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England, David C., to Du Pont de Nemours, E. I., and Company. Azetidinecarbonyl fluorides and oxazin-2-ones. 3,538,081, 11-3-70, Cl. 260-239.
England, David C., to Du Pont de Nemours, E. I., and Company. Preparation of 2,4-bis(hexafluoroisopropylidene)- 1,3-dithietane and fluorinated polysulfides by reaction of perfluoroisobutene with an alkali metal sulfide. 3,544,591, 12-1-70, Cl. 260-327.
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England, Michael J.; Donnell, Derrick; and Hales, Eric C., to Girling Limited. Couplings for brake system. 3,526,438, 9-1-70, Cl. 303-18.
England, Michael J.; Donnell, Derrick; and Hales, Eric C., to Girling Limited. Vehicle braking systems. 3,543,512, 12-1-70, Cl. 60-51.
England, Richard Jay, to Du Pont de Nemours, E. I., and Company. Polyethylene terephthalate film containing cobaltous aluminate. 3,520,846, 7-21-70, Cl. 260-40.
England, Richard J., to Du Pont de Nemours, E. I., and Company. Alkaline saponification of polyethylene terephthalate at high temperatures using controlled amount of sodium hydroxide. 3,544,622, 12-1-70, Cl. 260-515.
England, Walter F., to Sprague Electric Company. Extended foil capacitor. 3,539,885, 11-10-70, Cl. 317-258.
England, Walter F.; Mannheim, Daniel; and Cormier, George E., to Sprague Electric Company. Extended foil capacitor. 3,513,369, 5-19-70, Cl. 317-260.
Engle, Bruce W. Thermo-humidistat. 3,519,203, 7-7-70, Cl. 236-44.
Engle, Charles J., to Phillips Petroleum Company. Treatment of oils to reduce viscosity and sulfur content. 3,496,097, 2-17-70, Cl. 208-208.
Engle, Charles J., to Phillips Petroleum Company. Apparatus and method for liquid introduction in oil wells. 3,548,946, 12-22-70, Cl. 166-310.
Engle, Edgar W.; and Goodfellow, Robert D., Jr., to Kennametal, Inc. Rotary cone bit retained by captive keeper ring. 3,519,309, 7-7-70, Cl. 299-86.
Engle, Homer A., to Curtice, Marguerite, a/k/a Marguerite Curtice Stone. Underwater communications system. 3,495,209, 2-10-70, Cl. 340-4.
Engle, Jack F.; and Jeakle, William G., to Borg-Warner Corporation. Differential lubricating mechanism. 3,495,298, 2-17-70, Cl. 184-6.
Engle, Jack F.; and Jeakle, William Glen, to Borg-Warner Corporation. Lubricant differential mechanism. 3,533,488, 10-13-70, Cl. 184-11.
Engle, James P.; and Keeney, Bill R., to Halliburton Company. Prevention of ferric ion corrosion using acid cleaning solution containing hydrogen sulfide and an aldehyde corrosion inhibitor. 3,514,410, 5-26-70, Cl. 252-87.
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Engle, Milton A. Clothes label. 3,509,003, 4-28-70, Cl. 161-39.
Engle, Milton A. Clothing label. 3,537,194, 11-3-70, Cl. 40-2.

Engle, Robert C., to Micromatic Hone Corporation. Rough and finish honing tool. 3,496,678, 2-24-70, Cl. 51-34.
Engle, Rudolf; and von der Decken, Claus-Benedikt, to Brown Boveri/Krupp Reaktorbau G.m.b.H.Method of removing CO_2 and H_2O from a gas stream. 3,519,384, 7-7-70, Cl. 23-2.
Engle, Thomas H., to General Signal Corporation. Hydraulic brake circuits. 3,508,794, 4-28-70, Cl. 303-10.
Engle, Thomas H., to General Signal Corporation. Hydraulic tread brake unit and support means thereor. 3,512,615, 5-19-70, Cl. 188-74.
Engle, Thomas H., to General Signal Corporation. Pressure translators. 3,513,656, 5-26-70, Cl. 60-54.5
Engle, Thomas H., to General Signal Corporation. Electric current-to-pneumatic pressure transducer. 3,528,709, 9-15-70, Cl. 303-20.
Engle, Thomas H., to General Signal Corporation. Blending scheme for fluid-operated and dynamic brakes. 3,536,360, 10-27-70, Cl. 303-3.
Engle, Thomas H., to General Signal Corporation. Blending scheme for current responsive railway brake. 3,536,361, 10-27-70, Cl. 303-3.
Engle, Thomas H., to General Signal Corporation. Electrically assisted automatic air brake for trains. 3,545,816, 12-8-70, Cl. 303-15.
Engle, Thomas J.; Kirchner, Ronald P.; and Atchison, Kenneth. Concrete pipe bell depression former. 3,530,553, 9-29-70, Cl. 25-39.
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Engle, William H., to Caplan, Max. Flexible package carrying strap. 3,493,154, 2-3-70, Cl. 224-49.
Engle, William H. Modular structure. 3,501,876, 3-24-70, Cl. 52-86.
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Engleman, Donald E., to American Air Filter Company, Inc. Tapered separator for pleated filter and apparatus for making the same. 3,541,829, 11-24-70, Cl. 72-196.
Engleman, Donald Max, to Kinetic Objects Inc. Toy having lissajous vibratory motion. 3,516,193, 6-23-70, Cl. 46-1.
Engleman, Edmund. Silver recovery system. 3,524,805, 8-18-70, Cl. 204-228.
Engleman, Joseph H. Method of and means for conserving heat resident in hot metal billets. 3,521,868, 7-28-70, Cl. 263-40.
Englert, Robert D.; Swidler, Ronald; Berriman, Lester P.; and Wade, Robert H., to Koratron Company, Inc., mesne. Etherification of cellulosic materials and starch with fluorinated monoolefins alone or in conjunc- tion with fluorinated polyolefins. 3,489,504, 1-13-70, Cl. 8-120.
Englesson, Sixten; and Gamer, Sven Gustaf Yngve, to Stenberg-Flygt AB. System for treating sewage water using floculation and aeration as a means thereby. 3,495,711, 2-17-70, Cl. 210-195.
Englesson, Sixten; and Gamer, Sven Gustaf Yngve, to Stenberg-Flygt AB. Method and apparatus for treating sewage water by means of flocculation and aeration. 3,546,110, 12-8-70, Cl. 210-5.
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English, Jack A., to CTS Corporation. Board mounted modular circuit component and improvement therein. 3,524,108, 8-11-70, Cl. 317-101.
English, Jackson Pollard; and Hand, John James, to American Cyanamid Company. Tris(chloro sulfonylaryl)phosphates and a method for preparing same. 3,526,681, 9-1-70, Cl. 260-949.
English, James F.; and Green, David H., to General Electric Company. Tubular halogen cycle incandescent lamp. 3,521,109, 7-21-70, Cl. 313-222.
English, James, to Edwards High Vacuum International Limited. Penning pump power supplies. 3,518,532, 6-30-70, Cl. 324-33.
English, Martin, to Mitchell, L. A., Limited. Purification of vapours containing fluorine compounds. 3,512,341, 5-19-70, Cl. 55-71.
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Englund, Christer E. T.; and Marandi, Ali, to Clemar Manufacturing Corporation, mesne. Contaminant barrier for solenoid valves. 3,550,614, 12-29-70, Cl. 137-245.
Englund, Roland Gosta; Mattsson, Mats Erik; and Lindelow, Claes-Goran, to Svenska Dataregister AB. Control device. 3,517,877, 6-30-70, Cl. 235-3.
Engman, Robert G., to Joy Manufacturing Company. Precipitator rapper control. 3,525,021, 8-18-70, Cl. 317-142.

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Eon Corporation: *See—*
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Epler, Berton D., to Collins Radio Company. Electronic timer circuit for delayed application of discharge potential. 3,534,222, 10-13-70, Cl. 315-102.

Epley, Preston C., to Pilot Research Corporation. Knit seamless brassiere and method of forming same. 3,537,279, 11-3-70, Cl. 66-176.

Eppe, Rudolf; Hartwig, Karl; and Fruth, Franz, to Agfa-Gevaert Aktiengesellschaft. Powder application for electrophotographic apparatus. 3,536,043, 10-27-70, Cl. 118-637.

Eppenberger, Paul, to Gebruder Buhler AG. Sack-filling equipment. 3,498,020, 3-3-70, Cl. 53-55.

Eppenberger, Paul, to Gebruder Buhler AG. Feeding mechanism for weighing apparatus. 3,506,111, 4-14-70, Cl. 177-120.

Eppendorf Geraetebau Netheler and Hinz GmbH: *See—*
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Epperly, William R.: *See—*
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Eppinger, David P.; and Frantz, Richard L., to Textron, Inc. Strutted line-tying device. 3,501,116, 3-17-70, Cl. 248-63.

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Eppler, Daniel, to Thomas & Betts Co., The. Modular terminal connector block. 3,548,366, 12-15-70, Cl. 339-198.

Eppler, Richard A.; and Garfinkel, Harmon M., to Corning Glass Works. Glass article and method of production. 3,533,888, 10-13-70, Cl. 161-1.

Eppler, Walter Trowbridge, to Western Electric Company, Incorporated. Electrode probe system monitoring diametrically opposed conductor cable sections to measure sheath thickness and eccentricity. 3,500,185, 3-10-70, Cl. 324-61.

Eppler, Walter Trowbridge, to Western Electric Company, Incorporated. Capacitance bridge having a reference capacitor made from the same material under test. 3,508,147, 4-21-70, Cl. 324-61.

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Epsco Incorporated: *See—*
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Epstein, Barry M., to Bell Telephone Laboratories, Incorporated. Data transfer system and method. 3,533,071, 10-6-70, Cl. 340-172.5

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Epstein, Irving. Method and an apparatus for positioning a wire rope in a socket. 3,498,340, 3-3-70, Cl. 140-113.

Epstein, Isidore. Self-heating container. 3,527,201, 9-8-70, Cl. 126-263.

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Epstein, Max; Fryberger, David; Serafin, Robert J.; and van den Heuvel, Anthony P., to ITT Research Institute. Kinetomagnetic piezoelectric and piezoresistive tapping techniques for nonmagnetic delay lines. 3,500,461, 3-10-70, Cl. 333-30.

Epstein, Morton Batlan; and Gerecht, John Fred, to Colgate-Palmolive Company. Substantive sunscreening compositions. 3,506,758, 4-14-70, Cl. 424-60.

Epstein, Roland O., to Salamander Aktiengesellschaft. Shoe, especially shoe for aiding children in learning to walk. 3,500,561, 3-17-70, Cl. 36-2.5

Epstein, Sheldon L. Fluid-suspended particle analyzer. 3,487,697, 1-6-70, Cl. 73-432.

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Epstein, Sidney; and Epstein, David, to Vadys Associates, Ltd. Underwater communication and control. 3,541,500, 11-17-70, Cl. 340-5.

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Erath, Louis W. Audio component matching system. 3,493,682, 2-3-70, Cl. 179-1.

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Erath, Louis W.; and Plotkin, Gerald N., to United States of America, Navy. Oscillator-detector device. 3,524,410, 8-18-70, Cl. 102-10.2

Erb, Clayton: *See—*
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Erb, Edward R., to GAF Corporation. Web printing and coating method and apparatus. 3,519,460, 7-7-70, Cl. 117-15.

Erb, George H. Separable fastener. 3,546,754, 12-15-70, Cl. 24-204.

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Erb, George H., to American Velcro, Inc. Releasable closure fastening means. 3,550,837, 12-29-70, Cl. 229-45.

Erb, Gerhard; and Britzke, Ingo, to Wegmann & Co. Swingable sliding car door assembly. 3,501,864, 3-24-70, Cl. 49-215.

Erb, Gerhard; and Britzke, Ingo, to Wegmann & Co. Swingable sliding car door assembly. 3,520,083, 7-14-70, Cl. 49-212.

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Ercoli, Alberto; and Gardi, Rinaldo, to Warner-Lambert Pharmaceutical Company. Stable solution of therapeutically active steroid enol ethers and process. 3,549,752, 12-22-70, Cl. 424-239.

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Erdman, Charles A., to Graphic Controls Corporation, mesne. Recorder having stylus with radiused and slotted tip. 3,514,783, 5-26-70, Cl. 346-140.

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Erekson, Arthur B., to Borden Company, The. Apparatus for forming a continuous ribbon of wrapped comestible. 3,532,516, 10-6-70, Cl. 99-174.

Erenburg, Steven A.; Mizrachi, Bob D.; and Sputz, John P., to United States of America, Army. Navigation system. 3,492,736, 2-3-70, Cl. 33-226.

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Erhardt, William A., Jr., to United-Carr Incorporated. Tool head assembly. 3,526,943, 9-8-70, Cl. 29-200.

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Erickson, Albin R., to Textron Inc., mesne. Snowmobile track suspension system. 3,527,506, 9-8-70, Cl. 305-27.

Erickson, Albin R., to Textron Inc., mesne. Track suspension system snowmobiles. 3,545,821, 12-8-70, Cl. 305-24.

Erickson, Alen M.; and Kessler, Bernard V., to United States of America, Navy. Scanning Fabry-Perot laser 'Q' switch. 3,546,620, 12-8-70, Cl. 331-94.5

Erickson, Bruce; and Dudey, Karl F., to Nordberg Manufacturing Company. Electric speed control for fluid operated marine clutches. 3,548,987, 12-22-70, Cl. 192-104.

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Erickson, Charles D., to Smith, A. O., Corporation. Rotor balance system for turbine flowmeter. 3,518,881, 7-7-70, Cl. 73-231.

Erickson, Charles D., to Smith, A. O., Corporation. Fluid separator and eliminator. 3,536,091, 10-27-70, Cl. 137-202.

Erickson, Charles D., to Smith, A. O., Corporation. Positioning apparatus and valve. 3,536,099, 10-27-70, Cl. 137-625.44

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Erickson, Ernest S., to Ronson Corporation. Ice chipper. 3,508,715, 4-28-70, Cl. 241-186.

Erickson, Frederick E., to Gulf of Western Industries, mesne. Electro-pneumatic switch. 3,542,983, 11-24-70, Cl. 200-61.86

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Erickson, Henry; and Sanford, Robert A., to Sinclair Research, Inc. Catalyst comprising silica-alumina, separate phase alumina and crystalline alumino silicate. 3,542,670, 11-24-70, Cl. 208-120.

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Erickson, John M., to United States of America, Navy. Voltage reversal cancellation on series connected capacitors. 3,532,959, 10-6-70, Cl. 320-1.

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Erickson, John W., to Preco, Inc. Liquid cooled electric motor. 3,525,001, 8-18-70, Cl. 310-54.

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Erickson, Kent E., to Keuffel & Esser Company. Optics testing interferometer. 3,506,361, 4-14-70, Cl. 356-106.

Erickson, Leif O., to Minnesota Mining and Manufacturing Company. Web transport drive structure. 3,542,312, 11-24-70, Cl. 242-202.

Erickson, Lennart G. Gas-lift for liquid. 3,522,995, 8-4-70, Cl. 417-55.

Erickson, Lewis C. Silk screen making. 3,532,052, 10-6-70, Cl. 101-128.3

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Erickson, Paul N.; and Jordan, Richard J., to General Marine, Inc. Carbon monoxide detector for automotive vehicles. 3,502,887, 3-24-70, Cl. 250-218.

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Benjamin, Milton L.; and Walker, David D., 3,529,843.
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Erickson, Vedick A.; and Norris, A Lowell, to International Harvester Company. Planter lockout device. 3,509,837, 5-5-70, Cl. 111-77.

Erickson, Waldo G. Flexible rotary mower. 3,543,490, 12-1-70, Cl. 56-25.4

Erickson, Walter A. Mobile system for separating solids. 3,526,318, 9-1-70, Cl. 209-13.

Erickson, William F., to General Motors Corporation. Method of manufacturing a brake band. 3,529,345, 9-22-70, Cl. 29-445.

Ericksson, Dan, to Arenco Aktiebolag. Device for the orientation of fishes. 3,550,192, 12-29-70, Cl. 17-55.

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Eriksen, Jan Bergh, to Trio Fabrikker, A/S de Forenede Norske Laase- OG Beslagfabriker. Device for turning fish. 3,498,442, 3-3-70, Cl. 198-33.

Eriksen, Paul A. Tape-folding device. 3,528,651, 9-15-70, Cl. 270-73.

Eriksen, Walter; and Strengelsrud, Sverre, to Plategods A/S. Device for conductor and pipe connections on open decks. 3,550,615, 12-29-70, Cl. 137-362.

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Erikson, Herman E., to Polaroid Corporation. Monitoring device for indicating a given range of incident radiation. 3,519,820, 7-7-70, Cl. 250-71.5

Erikson, J. Alden; and Hart, Donald P., to PPG Industries, Inc. Electrodeposition of addition product partial ester and amine-aldehyde condensation product. 3,530,054, 9-22-70, Cl. 204-181.

Erikson, Kenneth R.: *See—*
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Eriksson, Sven Axell, to Aktiebolaget Astra. X-ray contrast medium containing barium sulphate. 3,539,682, 11-10-70, Cl. 424-4.

Eriksson, Sven-Erik Nore, to Atlas Copco Aktiebolag. Shovel loader with side tipping shovel. 3,532,241, 10-6-70, Cl. 214-768.

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Erismann, Paul. Support for loading pallets and the like. 3,512,653, 5-19-70, Cl. 211-176.

Erkan, Gunduz, to Fansteel, Inc. High strength ceramic standoff. 3,507,979, 4-21-70, Cl. 174-176.

Erke, Frederick C. Inflatable tank and carrier means therefor. 3,510,142, 5-5-70, Cl. 280-5.

Erkins, Robert A., to Baacler, Rudolf Georg Theodor. Method for mechanically removing the gills and entrails from fish. 3,510,910, 5-12-70, Cl. 17-52.

Erlandson, Paul M.; and Roth, Donald J., to Continental Can Company, Inc. Conformed seam structure and containers employing same. 3,502,243, 3-24-70, Cl. 220-75.

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Erlichman, Irving, to Polaroid Corporation. Film advancing apparatus. 3,511,152, 5-12-70, Cl. 95-13.

Erlichman, Irving, to Polaroid Corporation. Film cassette including battery power supply. 3,543,662, 12-1-70, Cl. 95-11.

Erlichman, Irving, to Polaroid Corporation. Photographic apparatus and film assemblage for use therewith. 3,550,515, 12-29-70, Cl. 95-13.

Erlichman, Irving; and Rosen, William J., to Polaroid Corporation. Film advancing apparatus. 3,545,357, 12-8-70, Cl. 95-13.

Erlichman, Irving; and Wareham, Richard R., to Polaroid Corporation. Exposure control apparatus. 3,533,346, 10-13-70, Cl. 95-53.

Erman, James E., to Chevron Research Company. Desulfurization using hydrogen chloride and hydrogen. 3,509,045, 4-28-70, Cl. 208-225.

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Erni, Ernst R., to Singer Company, The. Digit order and decimal point display system and circuit therefor. 3,526,887, 9-1-70, Cl. 340-324.

Ernick, Frederick G.; and Kisinko, Paul M., to Westinghouse Electric Corporation. Selective diffusion masking process. 3,510,369, 5-5-70, Cl. 148-187.

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Ernsberger, Maurice L., to Du Pont de Nemours, E. I., and Company. 1,2,3,4,5,6-Hexafluorocycloheptatrienes and their preparation. 3,489,790, 1-13-70, Cl. 260-468.

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Ernst, Alfred. Fluttering wing aerial propelled apparatus suitable for carrying a man. 3,498,574, 3-3-70, Cl. 244-22.

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Ernst, Max. Toy vehicle, especially railway toy vehicle. 3,513,592, 5-26-70, Cl. 46-216.

Ernst, Max. Track toy, especially automobile track toy. 3,520,475, 7-14-70, Cl. 238-10.

Ernst, Max. Toy turntable with changeable circumferential segmental members. 3,534,688, 10-20-70, Cl. 104-35.

Ernst, Max. Passenger car for toy and model railroads. 3,546,810, 12-15-70, Cl. 46-218.

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Ernst, Paul. Abrading machine. 3,510,987, 5-12-70, Cl. 51-138.

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Ernst, Richard R., to Varian Associates. Single sideband system for improving the sensitivity of gyromagnetic resonance spectrometers. 3,501,691, 3-17-70, Cl. 324-0.5

Ernst, Richard; Magde, Werner; Hilgendorf, Joachim; and Reuter, Arnd, to Kienzle Apparate G.m.b.H. Data processing and printing accounting machine. 3,539,780, 11-10-70, Cl. 235-61.9

Ernst, Robert R., to Sybron Corporation. Process and apparatus for recovering sterilizing gas for refuse. 3,549,312, 12-22-70, Cl. 21-58.

Ernst, Rudolf; and Kraft, Karl-Josef, to Maschinenfabrik Hennecke Gesellschaft mit beschrankter Haftung. Continuous production apparatus for hard ore foam plates having rigid cover layers particularly on a polyurethane base. 3,528,126, 9-15-70, Cl. 18-4.

Ernst, Theodore D.; and Stucke, Charles G., to Garlock, Inc. Porous packing material containing pressure and/or heat sensitive encapsulated lubricant and method for making and using the same. 3,513,943, 5-26-70, Cl. 184-1.

Ernst, Walter Edouard: *See—*
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Ernst, Walter, to Bau-Stahlgewebe GmbH. Fabrication of steel mats. 3,539,752, 11-10-70, Cl. 219-56.

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Ernyei, Herbert; and Saive, Jean, to Societe Lignes Telegraphiques et Telephoniques. Electromagnetic valves and application thereof to digital valves. 3,502,105, 3-24-70, Cl. 137-599.

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Errede, Louis A.: *See—*
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Erskine, Harold L.; and White, Chester N., to Great Canadian Oil Sands. Continuous settled density analyses. 3,530,041, 9-22-70, Cl. 196-14.52

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Ertel, Alfred; and Hyltin, Tom M., to Texas Instruments, Incorporated. Microwave mixer diode comprising a Schottky barrier junction. 3,508,125, 4-21-70, Cl. 317-234.

Ertl, Edward S.; and Hannula, Leslie A., to Acoustics Development Corporation. Coin telephone housing and assembly. 3,546,385, 12-8-70, Cl. 179-6.3

Ertl, John P., to Neural Models Limited. Intelligence testing and signal analyzing means and method employing zero crossing detection. 3,498,287, 3-3-70, Cl. 128-2.1

Ertle, Marion E.: *See—*
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Ertman, Robert J., to General Dynamics Corporation. Spurious-free phase-locked continuously tuned transceiver system. 3,509,462, 4-28-70, Cl. 325-17.

Ervin, Evander M.; Ferguson, Richard; and Hinton, Charles V., to Terlesco, Inc. Apparatus for cylindrically sizing elongated work pieces. 3,522,826, 8-4-70, Cl. 144-4.

Ervin, Harold D. Multiplex transmitter and central station system. 3,550,086, 12-22-70, Cl. 340-150.

Ervin, Harold D. Security alarm system. 3,550,111, 12-22-70, Cl. 340-276.

Erwin, Charles W. Heat producing device. 3,493,986, 2-10-70, Cl. 12-142.

Erwin, Edson L.; Field, Joseph P.; Mahood, Robert J.; and Cohen, Roger, to International Telephone and Telegraph Corporation. Preference channel selector for switching network marker. 3,529,094, 9-15-70, Cl. 179-18.

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Erwin, Galen B., to Flex-O-Lators, Inc. Automatic shears. 3,530,761, 9-29-70, Cl. 83-644.

Erwin, James V., to Minnesota Mining and Manufacturing Company. Projector. 3,511,563, 5-12-70, Cl. 353-38.

Erwin, Louis R., to Bendix Corporation, The. Vortex amplifier with chamfered pickoff orifice. 3,496,961, 2-24-70, Cl. 137-81.5

Erwin, Louis R.; Kiwak, Robert S.; and Vos, Clarence E., to Bendix Corporation, The. Vortex fluid amplifier of laminated construction. 3,506,024, 4-14-70, Cl. 137-81.5

Erwin, Louis R.; and McFall, Roger H., to Bendix Corporation, The. Vortex amplifier. 3,538,934, 11-10-70, Cl. 137-81.5

Erwin, Ralph C. Screw and nut assembly. 3,489,055, 1-13-70, Cl. 85-32.

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Esaki, Leo; Stiles, Phillip J.; and von Molnar, Stephan, to International Business Machines Corporation. Magnetic field controlled ferromagnetic tunneling device. 3,541,400, 11-17-70, Cl. 317-231.

ESB Incorporated: *See—*
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Escaldi, Salvatore. Portable fluid heater. 3,545,426, 12-8-70, Cl. 126-344.

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Esche, Delbert E., to McCord Corporation. Control valve assembly. 3,525,364, 8-25-70, Cl. 137-625.65

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Escher Wyss Limited: *See—*
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Esco Corporation: *See—*
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Escobedo, Francisco, to Fresco Industries Inc. Multi-purpose milling heads. 3,526,167, 9-1-70, Cl. 90-11.58

Escobosa, Alfonso S., to North American Rockwell Corporation. Redundant signalling apparatus having improved failure exclusion. 3,489,889, 1-13-70, Cl. 235-184.

Escobosa, Alfonso S., to North American Rockwell Corporation. Bistable hydraulic transfer means. 3,513,751, 5-26-70, Cl. 91-28.

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Escoli, Uri Z., to Eltra Corporation. Photocomposing machines. 3,496,848, 2-24-70, Cl. 95-4.5

Escoli, Uri Z., to Eltra Corporation. Film magazine for phototypographical machines. 3,521,538, 7-21-70, Cl. 95-4.5

Escoula, Henry, to Societe Lannionnaise d'Electronique. Antenna switching arrangement for continuous sequential sampling and selection of best signal. 3,537,011, 10-27-70, Cl. 325-304.

Esdaile, James Durie, to Commonwealth Scientific and Industrial Research Organization. Process for recovery of copper. 3,494,764, 2-10-70, Cl. 75-108.

Eshelman, Cheston Lee. Shock absorbing tire buffer. 3,502,362, 3-24-70, Cl. 293-19.

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Esmay, Edward N., to Bausch & Lomb Incorporated. Indexing rotatable nosepiece support for microscope objectives. 3,507,561, 4-21-70, Cl. 350-254.

Esmond, William G., to United States of America, Health, Education and Welfare. Transfer device. 3,490,523, 1-20-70, Cl. 165-166.

Esola, Charles H.; and Kreitz, Doanld B., to General Electric Company. Method of producing reinforcements in electro- deposits. 3,537,960, 11-3-70, Cl. 204-16.

Espagno, Jacques; Espagno, Lucien; and Huynh, Chanh Trung, to Societe Nationale des Petroles d'Aquitaine. Radioactivity sensing apparatus for measuring the blood flow. 3,528,407, 9-15-70, Cl. 128-2.05

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Espagno, Lucien; Blanc, Claude; and Huynh, Chanh Trung, to Societe Anonyme dite: Societe Nationale des Petroles d'Aquitaine. Process for separating isotopic compounds by absorption. 3,533,220, 10-13-70, Cl. 55-19.

Espasa Fanes, Arcadio. Impact responsive electrical actuator. 3,493,704, 2-3-70, Cl. 200-61.45

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Espen, David A., to Sperry Rand Corporation. Synchro data transmission apparatus having discrete gain changing to compensate for undesirable signal gradient variations. 3,548,284, 12-15-70, Cl. 318-23.5

Espen, David A.; Olafson, Arland I.; and Radtke, Richard K., to Sperry Rand Corporation. Overload and failure sensing circuit having duty cycle current limiting for synchro data transmitting and receiving apparatus. 3,543,124, 11-24-70, Cl. 318-69.1

Espenscheid, Wilton F.; and Heilwell, Israel J., to Mobil Oil Corporation. Method of electrolessly depositing metals on particles. 3,511,683, 5-12-70, Cl. 117-47.

Espenschied, Helmut; and Rothfuss, Georg, to Bosch, Robert, G.m.b.H. Torque transmitting device. 3,548,985, 12-22-70, Cl. 192-84.

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Espig, Hans Roger; Price, Peter Michael Myatt; and Vinni Combe, Glyn Alan, to Vickers Limited. Hydrodynamic bearings. 3,521,532, 7-21-70, Cl. 92-57.

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Espinosa, Adrian O. House number receptacle. 3,516,187, 6-23-70, Cl. 40-131.

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Ess, Kay Dewain; and Ryan, Donald James, to Du Pont de Nemours, E. I., and Company. Method for thermo-mechanically breaking polymer dispersion foam and separating the resulting liquid- vapor dispersion phases. 3,512,570, 5-19-70, Cl. 159-48.

Esse, Robert Carlyle, to American Cyanamid Company. Crystallization of nystatin. 3,517,101, 6-23-70, Cl. 424-123.

Esseling, Ludovicus Augustinus Lambertus, to U.S. Philips Corporation, mesne. Stacked diode high-voltage rectifier and method of manufacture thereof. 3,543,395, 12-1-70, Cl. 29-588.

Esseluhn, Werner F.; and Fegley, Charles R., to Western Electric Company, Incorporated. Methods of and apparatus for loading and unloading groups of articles into and from an assembly machine. 3,520,048, 7-14-70, Cl. 29-429.

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Esser, Ernst S., to Eaton Yale & Towne, Inc. Industrial truck with self actuated load lifting attachment. 3,515,299, 6-2-70, Cl. 214-350.

Esser, Herbert; and Gubler, Kurt, to Geigy Chemical Corporation. Method of controlling insects and acarinae, employing certain acylated hydrazones and hydrazines. 3,549,767, 12-22-70, Cl. 424-327.

Esser, Nicholas A. Manually operated target projector. 3,529,589, 9-22-70, Cl. 124-5.

Essers, Wilhelmus Gerardus; Jelmorini, Gerardus; and Tichelaar, Gerrit Willem, to U.S. Philips Corporation, mesne. Filled welding wire for the electric arc welding in a protective gas atmosphere. 3,504,160, 3-31-70, Cl. 219-146.

Essery, John Michael; and Van Harken, Donald Richard, to Bristol-Myers Company. Isoxazole penicillins. 3,534,020, 10-13-70, Cl. 260-239.1

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Evans, John L., to Singer-General Precision, Inc. Pneumatic linear displacement pickoff. 3,509,775, 5-5-70, Cl. 73-515.

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Evans, Norol T., to Hughes Aircraft Company. Data processor. 3,521,277, 7-21-70, Cl. 343-5.

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Evans, Paul F.; and Lees, Harold D., to Xerox Corporation. Solid state storage devices having non-corona extinction capability. 3,540,008, 11-17-70, Cl. 340-173.

Evans, Philip H., to BSR Limited. Control knob. 3,520,212, 7-14-70, Cl. 74-543.

Evans, Philip H., to BSR Limited. Pickup arm spindle bearings for record players. 3,520,540, 7-14-70, Cl. 274-23.

Evans, Philip H., to BSR Limited. Longitudinally split housing for rotary electric motor stator. 3,548,229, 12-15-70, Cl. 310-89.

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Evans, Ralph Henry, Jr.; Kunstmann, Martin Paul; Holmlund, Chester Eric; and Ellestad, George Alfred, to American Cyanamid Company. Fusarium fermentation. 3,546,073, 12-8-70, Cl. 195-81.

Evans, Raymond Victor; and Donlan, Thomas Alban, to Singer-Cobble Limited. Attachment for tufting machines. 3,543,705, 12-1-70, Cl. 112-79.

Evans, Raymond V., to Singer-Cobble Limited. Machine for laminating textile fabrics. 3,532,584, 10-6-70, Cl. 156-549.

Evans, Richard Henry, to Babcock & Wilcox, Limited. Expanded junction tube repairs. 3,550,561, 12-29-70, Cl. 122-235.

Evans, Richard V.; Williams, Virgil, Jr.; and Reiher, Max A. W., to Evans, Dick, Inc. Method of installing a pipe nipple in the wall of a casing. 3,492,824, 2-3-70, Cl. 61-46.5

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Evans, Robert C., to General Electric Company. High speed propulsion engine. 3,514,957, 6-2-70, Cl. 60-270.

Evans, Robert P.; Dykstra, Edward G.; and Van Geem, Richard R., to Sterilon Corporation. Method of making a rigid tipped polyvinyl catheter. 3,524,447, 8-18-70, Cl. 128-348.

Evans, Robert T.; and Boehm, Gail M., to Halliburton Company. Method and apparatus for manipulating a valve in a well packer. 3,493,052, 2-3-70, Cl. 166-315.

Evans, Roger L., to Minnesota Mining and Manufacturing Company. Process of forming metal coating on filled microcapsules. 3,503,783, 3-31-70, Cl. 117-47.

Evans, Ronald, to Imperial Chemical Industries Limited. Polymerisation apparatus and process. 3,492,791, 2-3-70, Cl. 55-36.

Evans, Sheldon; and Hamilton, Walter S., to North American Rockwell Corporation. Electrochemical deionization. 3,533,929, 10-13-70, Cl. 204-149.

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Evans, William R. Fishing light. 3,502,861, 3-24-70, Cl. 240-26.

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Everhart, Thomas E.; and Mac Donald, Noel C., to University of California, The Regents of the. Semiconductor memory element and method. 3,528,064, 9-8-70, Cl. 340-173.

Everhart, William B., to El-Rad Manufacturing Company. Frequency stabilized tuned circuit oscillator. 3,513,411, 5-19-70, Cl. 331-109.

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Evers, Heinz, to Interstabella AG. Apparatus for molding hollow articles. 3,514,812, 6-2-70, Cl. 18-5.

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Evers, William J., to Smith, A. O., Harvestore Products, Inc. Transfer device for storage structures and the like. 3,487,960, 1-6-70, Cl. 214-17.

Evers, William J., to Smith, A. O., Harvestore Products, Inc. Breather bag shelter. 3,494,274, 2-10-70, Cl. 99-235.

Evers, William J., to Geigy Chemical Corporation. Method and apparatus for producing cyanogen chloride using a modified oldershaw reaction column. 3,499,738, 3-10-70, Cl. 23-359.

Evers, William J.; and McCracken, Philip G., to Geigy Chemical Corporation. Method for producing a solution of cyanuric chloride from gaseous cyanuric chloride. 3,539,565, 11-10-70, Cl. 260-248.

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Every, Richard L.; and Cox, Paul F., to Continental Oil Company. Manufacture of ammonium thiosulfate and ammonium sulfate. 3,493,337, 2-3-70, Cl. 23-115.

Every, Richard L.; and Cox, Paul F., to Continental Oil Company. Method for making ammonium thiosulfate and ammonium sulfate. 3,524,724, 8-18-70, Cl. 23-115.

Every, Richard L.; and Cox, Paul F., to Continental Oil Company. Method for preparing low pressure sulfur-nitrogen fertilizer solutions. 3,529,951, 9-22-70, Cl. 71-28.

Every, Richard L.; and Grimsley, Ralph Leroy, to Continental Oil Company. Removal of carbon dioxide from natural gas. 3,524,722, 8-18-70, Cl. 23-3.

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Farnsworth, Robert P.; and Knapp, Edward J., to Hughes Aircraft Company. Selective target ranging system. 3,545,861, 12-8-70, Cl. 356-5.
Farnsworth, Ross D. Convertible wheeled and tracked vehicle. 3,500,944, 3-17-70, Cl. 180-6.24
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Farone Eugene R., to Lubrizol Corporation, The. Metal coating compositions. 3,519,493, 7-7-70, Cl. 148-6.15
Farquhar, Marshal C.; and Hill, John A., to American Potash & Chemical Corporation. Process of separating rubidium from alkali metal impurities. 3,510,257, 5-5-70, Cl. 23-89.
Farquhar, Melville T., to Reynolds Metals Company. Package construction for a plurality of articles. 3,490,582, 1-20-70, Cl. 206-65.
Farquhar, Melville T., to Reynolds Metals Company, Carton and blank for making same. 3,506,181, 4-14-70, Cl. 229-39.
Farquhar, Melville T., to Reynolds Metals Company. Reclosable dispensing carton. 3,517,858, 6-30-70, Cl. 221-305.
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Farquhar, Melville T., to Reynolds Metals Company. Method of making dish-like container. 3,547,011, 12-15-70, Cl. 93-36.

Farr, Alfred S., to Owens-Corning Fiberglas Corporation. Flexible tubing. 3,527,258, 9-8-70, Cl. 138-131.

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Farr, Glyn Phillip Reginald, to Girling Limited. Self-adjusting mechanisms. 3,488,687, 1-6-70, Cl. 188-196.

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Farr, James B., to Tecumseh Products Company. Ignition system. 3,490,426, 1-20-70, Cl. 123-149.

Farr, James B., to Tecumseh Products Company. Solid state ignition with automatic timing advance. 3,515,109, 6-2-70, Cl. 123-148.

Farr, John B., to Pan American Petroleum Corporation. Spatial filtering system wherein different portions of an input object are differently filtered. 3,492,635, 1-27-70, Cl. 340-15.5

Farr, John B., to Pan American Petroleum Corporation. Method and apparatus for optically processing seismic data using spatial filtering techniques. 3,524,706, 8-18-70, Cl. 356-71.

Farr, Thad D.; and Fleming, Julius D., to Tennessee Valley Authority. Ammonium polyphosphate produced at atmospheric pressure. 3,533,737, 10-13-70, Cl. 23-107.

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Farrall, George A., to General Electric Company. Triggering circuit for power switching vacuum gap device. 3,514,636, 5-26-70, Cl. 307-252.

Farran, Richard A.; Bennett, John E. R.; and Yee, George, to United States of America, Air Force. Expandable cavity-backed spiral antenna. 3,495,250, 2-10-70, Cl. 343-834.

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Farrar, Ralph C.; and Gaeth, Rudolf H., to Phillips Petroleum Company. Modification of the properties of conjugated diene polymers in an electrostatic field. 3,514,387, 5-26-70, Cl. 204-168.

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Hold, Peter; and Klara, Charles J., 3,494,675.
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Farrell, Francis J.; and Fagan, Joseph P., to Du Pont de Nemours, E. I., and Company. Process for preparing composite sheet material. 3,536,553, 10-27-70, Cl. 156-77.

Farrell, Gerlad J., to U.S. Industries, Inc. High energy rate machines. 3,538,738, 11-10-70, Cl. 72-436.

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Farrell, Thomas Rankine. Sea-going cargo transportation facilities. 3,537,413, 11-3-70, Cl. 114-43.5

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Farrissey, William J., Jr.; Recchia, Francesco P.; and Sayigh, Adnan A. R., to Upjohn Company, The. 1(α-Tosyl)-3-(2-bromo-4,4,4-trichlorobutyl) urea. 3,493,612, 2-3-70, Cl. 260-553.

Farrissey, William J., Jr.; Recchia, Francesco P.; and Sayigh, Adnan A. R., to Upjohn Company, The. Process for rendering cellulosic material fire retardant. 3,501,457, 3-17-70, Cl. 260-212.

Farrissey, William J., Jr.; Rose, James S.; and Sayigh, Adnan A. R., to Upjohn Company, The. N-hydroxyalkyl derivatives of diphenylsulfone tetracarboxylic acid diimides. 3,494,933, 2-10-70, Cl. 260-326.

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Farrow, Cecil W., to Bell Telephone Laboratories, Incorporated. Self-adjusting radix converter. 3,544,779, 12-1-70, Cl. 235-155.

Farrow, Cecil W.; Lawless, William J.; and Maruscsak, Joseph, to Bell Telephone Laboratories, Incorporated. Digital phase shifter. 3,529,250, 9-15-70, Cl. 328-155.

Farrow, Harold F., to Colorflo Limited. Printing member with self contained ink supply means. 3,491,683, 1-27-70, Cl. 101-125.

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Fassbender, Henry J., to Eastman Kodak Company. Toning composition for direct positive paper. 3,515,555, 6-2-70, Cl. 96-52.

Fasse, Gerald A.; and Mychalowych, Eugene A., to Booth Newspapers, Inc. Automatic knife block control assembly for a linecasting machine. 3,536,186, 10-27-70, Cl. 199-59.

Fassel, Velmer A.; and Dickinson, George W., to United States of America, Atomic Energy Commission. Method for direct spectrographic analysis of molten metals. 3,521,959, 7-28-70, Cl. 356-85.

Fassell, Wayne Martin, Jr.; Bridges, Donald W.; and White, Minor H., to Philco-Ford Corporation. Method of operating a thermal fuel cell comprising a metal and a halogen electrode. 3,507,700, 4-21-70, Cl. 136-86.

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Fathauer, George H., to Electra Corporation. Signal-seeking radio receiver. 3,531,724, 9-29-70, Cl. 325-469.

Fathauer, George H., to Dole Valve Company, The. Load warning device. 3,534,355, 10-13-70, Cl. 340-267.

Fathauer, George H., to Eaton Yale & Towne, Inc. Integrating conveyorized weighing system. 3,539,027, 11-10-70, Cl. 177-16.

Fathauer, George H. Automatic animal feed control system. 3,541,995, 11-24-70, Cl. 119-51.

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Fauber, Eugene M., to Sinclair Research, Inc. Air-blow homogeneous asphalt composition containing hydroxy-terminated polydiene oil of high viscosity to penetration ratio. 3,540,906, 11-17-70, Cl. 106-278.

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Faulkner, Alfred H.; and Nelson, Hayden A., to General Motors Corporation. Coincident current read only memory using linear magnetic elements. 3,488,641, 1-6-70, Cl. 340-174.

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Faulkner, Arthur Manthorp, to Plessey Company Limited, The. Jointing clips for insulated electric wires and method of making same. 3,517,804, 6-30-70, Cl. 206-56.

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Faure, Marc Henri Jean, to Bertin & Cie. Cushion sealing device for surface effect machines. 3,506,084, 4-14-70, Cl. 180-116.

Faure, Marc Henri Jean, to Societe d'Etudes et de Developpement des Aeroglisseurs Marins, S. E. D. A. M. Multi-skirt ground effect machine. 3,513,933, 5-26-70, Cl. 180-121.

Faure, Marc Henri Jean, to Bertin et Compagnie. Transport facilities with fluid sustained vehicle. 3,515,073, 6-2-70, Cl. 104-23.

Faure, Marc Henri Jean, to Bertin & Cie. Plenum chamber cushion system for surface effect machines. 3,524,518, 8-18-70, Cl. 180-127.

Faure, Marc Henri Jean, to Bertin et Compagnie. Fluid cushion supported and guided vehicle track system. 3,530,798, 9-29-70, Cl. 104-23.

Faure, Marc Henri Jean, to Bertin & Cie. Side-wall device for fluid cushion system of surface effect machine. 3,536,154, 10-27-70, Cl. 180-116.

Fauser, Donald L.; and Bobalek, Edward G., to Harris-Intertype Corporation. Electrostatic photography systems. 3,507,794, 4-21-70, Cl. 252-62.1

Fausett, Dale L., to General Electric Company. Information storage control apparatus for a magnetic core memory. 3,550,100, 12-22-70, Cl. 340-174.

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Faust, Ellsworth E.; and Wilbur, Arnold G., to Celanese Corporation. Polyacrylate thickeners and copolymers used to produce same. 3,501,445, 3-17-70, Cl. 260-86.1

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Fauth, Gunter, to Agfa-Gevaert Aktiengesellschaft. Double exposure preventing structure for photographic cameras. 3,489,070, 1-13-70, Cl. 95-31.

Fauth, Gunter, to Agfa-Gevaert Aktiengesellschaft. Camera for daylight and flashphotography. 3,526,178, 9-1-70, Cl. 95-11.5

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Favereau, Jacques Rene, to Compagnie Electro-Mecanique. Device for producing an intense and uniform magnetic field within a volume of revolution such as a sphere or ellipsoid. 3,493,904, 2-3-70, Cl. 335-216.

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Favis, Dimitrios V., to Esso Research and Engineering Company. Process for making linear alpha olefins. 3,549,723, 12-22-70, Cl. 260-683.15

Favre, Robert. Rotational speed sensor utilizing the phase shift caused by superposition of an A.C. signal in the sensor and a signal induced from the rotating body. 3,505,595, 4-7-70, Cl. 324-70.

Favre, Robert, to Fabriques Movado. Mechanical resonator of rotation. 3,528,308, 9-15-70, Cl. 74-142.

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Favro, Alden E.; Warburton, Richard T.; and Commisso, Nicholas D., to Mobil Oil Corporation. Egg carton closing apparatus. 3,518,811, 7-7-70, Cl. 53-376.

Faw, John M., to Xerox Corporation. Xerographic exposure apparatus. 3,497,296, 2-24-70, Cl. 355-3.

Fawcett, Kenneth J., Jr., to Scope, Incorporated. Spectrum analyzer wherein an analog waveform is sampled exponentially in time with two fixed reference sequences. 3,546,440, 12-8-70, Cl. 235-150.5

Fawcett, Kenneth J., Jr.; Fuhr, William H.; Pefferman, Ernest B.; and Stone, William M., to Melpar, Inc. Adaptive pulse analyzer with cross-correlation. 3,517,176, 6-23-70, Cl. 235-181.

Fawick, Thomas L. Hydraulic braking system. 3,498,420, 3-3-70, Cl. 188-90.

Fawkes, Donald G., to Pratt, Henry, Company. Valve seat structure. 3,540,696, 11-17-70, Cl. 251-306.

Fawkes, Donald G., to Pratt, Henry, Company. Valve seat structure. 3,544,066, 12-1-70, Cl. 251-306.

Fawn Engineering Company: *See—*
Wittern, Francis A., 3,545,586.

Faxas, Juan. Cane harvester. 3,550,361, 12-29-70, Cl. 56-16.

Fay, Clarence C. Proportioning device for hydraulic system actuator. 3,530,670, 9-29-70, Cl. 60-45.6

Fay, Elliott J.; and Preston, Francis J., to Omark Industries, Inc. Selectable mode welding apparatus. 3,522,409, 8-4-70, Cl. 219-98.

Fay, Elliott J.: *See—*
Pease, Charles C.; Ritter, Ralph K.; and Fay, Elliott J.,3,508,028.

Fay, Homer; Alford, Wilbur J.; and Dess, Howard M., to Union Carbide Corporation. Lithium niobate crystals having elevated phase matching temperatures and method therefor. 3,528,765, 9-15-70, Cl. 23-51.

Fay, John R.; and Stinson, John P., to International Business Machines Corporation. Apparatus for automatically measuring the thickness of transparent films on silicon wafers. 3,551,056, 12-29-70, Cl. 356-108.

Fay, Philip S.: *See—*
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Fay Pipe & Pile Inc.: *See—*
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Fay, Robert C., to Deering Milliken Research Corporation. Apparatus for treating textile material. 3,526,024, 9-1-70, Cl. 28-62.

Fay, Stanley, to Raytheon Company. Zero cross-coupling single axis gyro stabilization system. 3,527,108, 9-8-70, Cl. 74-5.

Fayan, Jack. Combination cutting tool. 3,521,353, 7-21-70, Cl. 30-144.

Faye, Eli J.: *See—*
Graybill, Howard W.; and Faye, Eli J.,3,546,356.

Faye, Pierre Louis: *See—*
Duroux, Jacques Marius; and Faye, Pierre Louis,3,519,676.

Faye, Pierre, to Societe Nouvelle d'Electronique et de la Radio-Industrie. Corrective network for servo-systems. 3,532,997, 10-6-70, Cl. 328-155.

Fayling, Clarence D.: *See—*
Calgaro, Louis A.; Fayling, Clarence D.; and Ray, Phillip M.,3,494,454.

Fayling, Richard E., to Minnesota Mining and Manufacturing Company. Overvoltage protection device. 3,492,532, 1-27-70, Cl. 317-16.

Fazzani, Raymond John, to Maclodyne Corporation. Bending machine. 3,545,247, 12-8-70, Cl. 72-310.

Fazzari, Anthony M.: *See—*
Yeh, Ying L.; and Fazzari, Anthony M.,3,491,142.

Feakes, Frank, to Norton Research Corporation. Laminated vacuum coated titanium structural material. 3,551,247, 12-29-70, Cl. 156-278.

Fearing, Ralph B., to Stauffer Chemical Company. Phosphoro and phosphono acetylhydrazides. 3,518,327, 6-30-70, Cl. 260-923.

Fearing, Ralph B., to Stauffer Chemical Company. Methods for controlling insects and mites with anisyl chloromethylphosphonodithioates. 3,523,999, 8-11-70, Cl. 424-217.

Fearnley, Charles; and Jones, Thomas Ivor, to Geigy Chemical Corporation. Fiber coating compositions. 3,544,501, 12-1-70, Cl. 260-29.6

Fearon, Robert Earl; and Foss, Rudolph George, to Ciba Corporation. Exothermic compositions and heat collars containing said compositions. 3,550,578, 12-29-70, Cl. 126-263.

Fearon, Robert E., to Electro Chemical Laboratories Corporation. Fire building device. 3,515,525, 6-2-70, Cl. 44-38.

Feasel, Ray E., to Industrial Service Company, Inc. Cyclonic separation devices. 3,499,531, 3-10-70, Cl. 210-114.

Feaster, Gene R.: *See—*
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Feaster, Gene R., to Westinghouse Electric Corporation. High speed electron multiplier. 3,513,345, 5-19-70, Cl. 313-95.

Feather, Jack Vincent. Spring type bust developer. 3,497,216, 2-24-70, Cl. 272-83.

Feather, Jack Vincent. Spring type neck and facial exerciser. 3,497,217, 2-24-70, Cl. 272-83.

Feather, Jack Vincent. Weight reducing belt. 3,544,256, 12-1-70, Cl. 128-293.

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Fecher, John W.; and Fisher, Virgil W., to National Cash Register Company, The. Sealing disc for tape handling apparatus. 3,507,432, 4-21-70, Cl. 226-89.

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Fechter, Leonhard Emil; and Klump, Dieter, to Passavant-Werke. Blade support structure for clarifier system or the like. 3,498,466, 3-3-70, Cl. 210-525.
Passavant, Rudolf Christian; and Fechter, Leonhard Emil,3,494,476.

Fechtig, Bruno; Vischer, Ernst; Bickel, Hans; Bosshardt, Rolf; and Urech, Jakob, to Ciba Corporation. Process for the manufacture of esters of 7-amino- cephalosporanic acid. 3,503,964, 3-31-70, Cl. 260-243.

Fecker, Josef, to Texpatent GmbH. Circular knitting machine for the manufacture of runproof stockings. 3,491,559, 1-27-70, Cl. 66-97.

Fedde, George A., to Sperry Rand Corporation. Keepered plated wire memory plane. 3,512,142, 5-12-70, Cl. 340-174.

Fedders Corporation: *See—*
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Beare, Robert B.; and Conrath, Richard L., 3,536,412.
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Morgan, Curtis L., 3,545,423.
Nelson, James K.; and Laue, Terry J., 3,504,444.
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Feddersen, John F., to Selmer, H. & A., Inc. Control assembly for wind instruments and the like. 3,507,971, 4-21-70, Cl. 84-1.14

Feddick, Earl W.; and Wassmann, Gustave, to Valley Manufacturing Company. Pool balls separable by magnetic forces. 3,547,439, 12-15-70, Cl. 273-59.

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Babusci, Louis D.; Cretella, Biagio A.; Feder, David O.; and Koontz, Donald E.,3,532,545.

Feder, Herbert S., to Bell Telephone Laboratories, Incorporated. Multiplex signal transfer circuit. 3,521,000, 7-21-70, Cl. 179-15.

Feder, Herbert S., to Bell Telephone Laboratories, Incorporated. Time division multiplex switching system. 3,522,381, 7-28-70, Cl. 179-15.

Feder, Herbert S., to Bell Telephone Laboratories, Incorporated. Fast reframing circuit for digital transmission systems. 3,541,456, 11-17-70, Cl. 328-56.

Feder, Jack B.: *See—*
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Federal Carton Corporation: *See—*
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Federal Cartridge Corporation: *See—*
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Federal Tool Engineering Co.: *See—*
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Federal-Mogul Corporation: *See—*
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Binkley, Howard J. R., 3,487,589.
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Jones, Hugh F.; and Creese, Earl D., 3,522,165.
Pethick, David W., 3,531,970.
Secunda, Kenneth, 3,537,560.
Williams, Charles W.; and Jensen, Elmer C., 3,515,448.
Willing, Richard G., 3,525,557.
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Federated Waste & Pollution Control Corporation: *See—*
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Federkiel, Wilhelm: *See—*
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Federman, Murray, to Glamorene Products Corporation. Display rack. 3,490,598, 1-20-70, Cl. 211-4.

Federspill, George M., to Steel Parts Corporation. Method of making bushing from rolled strip. 3,537,292, 11-3-70, Cl. 72-368.

Fedit, Rene; and Janodet, Marcel, to Vaporisateurs Marcel Franck S.A. Piston pump for dispensing liquids or fluid pastes. 3,502,035, 3-24-70, Cl. 103-178.

Fedock, Michael P.; and Kohl, Theodore G., to Republic Steel Corporation. Process for producing a dicalcium ferrite sintered product. 3,519,386, 7-7-70, Cl. 23-51.

Fedorov, Alexei Sergeevich. Pulse transformer driven memory matrix. 3,540,017, 11-17-70, Cl. 340-174.

Fedorov, Nikolai Evstigneevich: *See—*
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Fee, Maurice L., to Hughes Aircraft Company. Waveguide side wall slot radiator. 3,521,287, 7-21-70, Cl. 343-771.

Fee, Maurice L., to Hughes Aircraft Company. Dual frequency antenna. 3,523,297, 8-4-70, Cl. 343-771.

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Feenan, John: *See—*
Jacks, Eric; Feenan, John; and Clarke, Wilfred,3,524,199.

Feenan, John; Wafer, Ronald Vincent; and Jacks, Eric, to English Electric Company Limited, The. Fuse links. 3,523,264, 8-4-70, Cl. 337-161.

Feenan, John; Wafer, Ronald Vincent; and Jacks, Eric, to English Electric Company Limited, The. Fuse elements. 3,523,265, 8-4-70, Cl. 337-290.

Feeney, James. Gyromagnetic resonance spectrometer with means for selecting predetermined operating conditions. 3,544,887, 12-1-70, Cl. 324-0.5

Feeney, William J., to Grace, W. R., & Co. Molding apparatus. 3,543,336, 12-1-70, Cl. 18-17.

Fegan, Lloyd V., Jr., to Bethlehem Steel Corporation. Temperature compensated moisture meter having bridge zero varying potentiometer and ganged rheastats. 3,497,803, 2-24-70, Cl. 324-65.

Fegan, Lloyd V., Jr., to Bethlehem Steel Corporation. Probe for apparatus making temperature compensated resistance measurements of a moving bed of highly abrasive material. 3,500,187, 3-10-70, Cl. 324-65.

Fegan, Richard M.: *See—*
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Dudek, Edmund C.; Batson, William A.; and Fegan, Richard M.,3,533,193.

Fegem, James F.: *See—*
Richardson, Charles R., Jr.; and Fegem, James F.,3,545,015.

Feger, Herbert; and Hagen, Werner, to Elba Werk Ettlinger Baumaschinen- und Hebezeugfabrik GmbH. Rope-drag line device for conveying of bulk goods. 3,488,036, 1-6-70, Cl. 254-147.

Fegley, Charles R.: *See—*
Esseluhn, Werner F.; and Fegley, Charles R.,3,520,048.

Fegley, Charles R., to Western Electric Company, Incorporated. Methods of and apparatus for straightening leads. 3,542,087, 11-24-70, Cl. 140-147.

Fegley, Nelson L.: *See—*
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Fehlauer, Jurgen: *See—*
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Fehlis, La Verne; Grossenbacher, Robert J.; and Duesterheft, Royce N. Self-triggered veterinary innoculating device. 3,494,358, 2-10-70, Cl. 128-218.

Fehlner, Francis P., to Corning Glass Works. Method for forming thin films. 3,502,554, 3-24-70, Cl. 204-130.

Fehmerling, Gottlieb Bernhard. Process and composition for loosening and removing edible tissue from shells of marine creatures. 3,513,071, 5-19-70, Cl. 195-2.

Fehn, Gregory M., to Owens-Illinois, Inc. Process of extruding a cellular polymeric composition. 3,502,754, 3-24-70, Cl. 264-54.

Fehn, Robert J.: *See—*
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Fehnel, Richard B., to Burroughs Corporation. Compact cold cathode indicator tube. 3,518,477, 6-30-70, Cl. 313-109.5

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Fehr, Isaac N.; Cannon, Sidney E.; Sutherland, Dan; Goodman, William D.; Ashcraft, Robert M.; and Shelby, Frank S., to Campbell Taggart Associated Bakeries, Inc. Continuous flow bun packager. 3,490,354, 1-20-70, Cl. 99-173.

Fehr, Isaac N.; Cannon, Sidney E.; Sutherland, Dan; Goodman, William D.; Ashcraft, Robert M.; and Shelby, Frank S., to Campbell Taggart Associated Bakeries, Inc. Packaging machine and package formed thereby. 3,508,378, 4-28-70, Cl. 53-180.

Fehr, Joseph A., Jr., to General Electric Company. Busway joint cover with expansion accommodating means. 3,489,846, 1-13-70, Cl. 174-88.

Fehrenbach, Horst; and Wolber, Robert, to Messrs, Gebruder Junghans Gesellschaft mit beschrankter Haftung. Timepiece with a calendar mechanism. 3,495,395, 2-17-70, Cl. 58-4.

Fehrenbach, Siegfried; Muller, Willi; and Schneider, Karl-Heinz, to Bosch, Robert, G.m.b.H. Pressure control valve. 3,511,270, 5-12-70, Cl. 137-510.

Fehrer, Ernst. Needle punching machine for manufacturing endless webs. 3,488,820, 1-13-70, Cl. 28-4.

Fehring, Wendell B.; Scherer, Friedrich W.; and Wika, Donald K., to Boeing Company, The. Staggered four truck main landing gear for heavy aircraft. 3,511,456, 5-12-70, Cl. 244-102.

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Feierabend, Louis B., to International Business Machines Corporation. Self-positioning reel latching apparatus. 3,542,305, 11-24-70, Cl. 242-68.3

Feigel, Harold J., to Closure Corporation. Container closing device. 3,491,657, 1-27-70, Cl. 93-36.9

Feighery, J. W., Company: *See—*
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Feighery, James M., to Feighery, J. W., Company. Knot-tying device for fringes. 3,490,801, 1-20-70, Cl. 289-2.

Feighner, George C.; and Weimer, Dean R., to Continental Oil Company. Low foam surfactants. 3,539,518, 11-10-70, Cl. 252-89.

Feighner, George C.: *See—*
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Feigl, Erich F.: *See—*
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Feiglin, Samuel, to Feiglin, M., & Sons Propietary Limited. Apparatus for jointing timber sections. 3,524,785, 8-18-70, Cl. 156-380.

Feiler, Gunter, to Geyer Maschinen- und Apparatenau G.m.b.H. Method and apparatus for printing black and white or colour films. 3,508,827, 4-28-70, Cl. 355-124.

Feillet, Antoine, to Boussois-Souchon-Neuvesel. Method and device for cutting sheets of glass. 3,543,978, 12-1-70, Cl. 225-2.

Fein, Harry. Polarity pulse augmentor for pulse rate modulators. 3,523,259, 8-4-70, Cl. 332-9.

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Fein, Marvin M.; Jasinski, Victor K.; and Barabas, Eugene S., to GAF Corporation. Copolymers of vinyl lactams and methods of making the same. 3,511,817, 5-12-70, Cl. 260-78.5
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Fein, Michael E.; Markin, Joseph; and Sobel, Alan, to Zenith Radio Corporation. Radiation translating devices. 3,498,693, 3-3-70, Cl. 350-160.

Fein, Michael E.; Markin, Joseph; and Sobel, Alan, to Zenith Radio Corporation. Light control and image translating system. 3,517,983, 6-30-70, Cl. 350-160.

Feinauer, Roland, to Chemische Werke Huls Aktiengesellschaft. Method for the preparation of poly-[1,4-bis- (hydroxymethyl)-cyclohexane-terephthalate]. 3,493,542, 2-3-70, Cl. 260-75.

Feinauer, Roland, to Chemische Werke Huls A.G. Linear polyester amides prepared from 4,6 dioxa-1- aza-bicyclo[3,3,0]octanes and dicarboxylic acid anhydrides. 3,507,830, 4-21-70, Cl. 260-47.

Feinberg, Irving: *See—*
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Feinberg, Irving; Langdon, Jack L.; and Sitler, Carl L., to International Business Machines Corporation. Monolithic integrated structure including fabrication thereof. 3,539,876, 11-10-70, Cl. 317-101.
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Feinberg, Judith L.: *See—*
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Feinberg, Paul M.: *See—*
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Feiner, Alexander, to Bell Telephone Laboratories, Incorporated. Time-shared telephone ringing arrangement. 3,492,437, 1-27-70, Cl. 179-18.

Feiner, Alexander; and Ulrich, Werner, to Bell Telephone Laboratories, Incorporated. Ringing arrangement with variable intervals. 3,492,436, 1-27-70, Cl. 179-18.

Feingold, Eugene B.: *See—*
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Feingold, William, to Andrea Radio Corporation. Timer operated tuning device. 3,529,175, 9-15-70, Cl. 307-141.8

Feinmechanik-Anstalt: *See—*
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Feinstein, Joseph; and Muller, Marcel W., to Varian Associates. Solid state plasma maser. 3,533,011, 10-6-70, Cl. 331-94.

Feinstein, Lester; and Hruby, Ronald J., to United States of America, National Aeronautics and Space Administration. Microwave flaw detector. 3,532,973, 10-6-70, Cl. 324-58.5

Feinstone, Wolffe Harry; and Black, Archie Scott, deceased0 (by Black, Gladys Doyle; legal representative), to Plough, Inc. Method of wrinkle smoothing. 3,523,998, 8-11-70, Cl. 424-78.

Feisel, Lyle D., to Research Corporation. Ferroelectric storage device. 3,537,079, 10-27-70, Cl. 340-173.2

Feissel, Henri Gerard, to Societe Industrielle Bull-General Electric (Societe Anonyme). Ferromagnetic-film memory elements with two flux closure elements. 3,500,356, 3-10-70, Cl. 340-174.

Feissel, Henri Gerard, to Societe Industrielle Bull-General Electric (Societe Anonyme). Sensing system for an array of persistent current storage elements. 3,524,170, 8-11-70, Cl. 340-173.1

Feissel, Henri Gerard; and Gallet, Francois Charles, to Societe Industrielle Bull-General Electric (Societe Anonyme). Ferromagnetic multifilm memory elements. 3,512,143, 5-12-70, Cl. 340-174.

Feist, Wolfgang M., to Raytheon Company. Solid state tunnel cathode emitter having an improved thin film insulating barrier. 3,535,598, 10-20-70, Cl. 317-234.

Feister, John F. Pavement joint sealing device. 3,527,147, 9-8-70, Cl. 94-18.

Feistl, Manfred: *See—*
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Feix, Kurt, to Vereinigte Osterreichische Eisen- und Stahlwerke Aktiengesellschaft. Pedestal bearing arrangement. 3,540,784, 11-17-70, Cl. 308-74.

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Fejmert, Bernhard V. Mixing apparatus. 3,536,304, 10-27-70, Cl. 259-178.

Fekete, Ernoe A.: *See—*
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Fekete, Frank; and Baum, Melvin E., to Koppers Company, Inc. Polyester resin composition having a thickening agent therein. 3,538,188, 11-3-70, Cl. 260-865.

Fekete, Frank; and McNally, John S., to Koppers Company, Inc. High temperature unsaturated polyester. 3,530,202, 9-22-70, Cl. 260-861.

Fekete, Frank; and McNally, John S., to Koppers Company, Inc. High temperature unsaturated polyester including neopentyl glycol and tetrahydrophthalic acid. 3,533,999, 10-13-70, Cl. 260-75.

Fekete, Joseph. Cap with ear protectors connected by elastic. 3,518,701, 7-7-70, Cl. 2-172.

Fekete, Lancelot A. Vortex tube process and apparatus. 3,546,891, 12-15-70, Cl. 62-5.

Fekete, Marton: *See—*
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Fekete, Nicholas G.; and Koerner, Harry E., to Westinghouse Electric Corporation. Servomotor-operated X-ray shutter control system for use with a spotfilm device. 3,546,463, 12-8-70, Cl. 250-105.

Fekkes, Nanno: *See—*
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Felch, Elroy L, to Continental Oil Company. Bag filter cleaning. 3,513,639, 5-26-70, Cl. 55-293.

Feld, Heinrich, to Waldrich, H. A., G.m.b.H. Heavy machine tool. 3,490,319, 1-20-70, Cl. 82-38.

Feld, Newton L., to Western Union Telegraph Company, The. Data card transmitter with card controlled gating means. 3,504,186, 3-31-70, Cl. 250-219.

Feld, Sam H.; Buell, Charles A.; and Isaacson, Gary C., to Boeing Company, The. Target-type thrust reverser. 3,550,855, 12-29-70, Cl. 239-265.29

Feldhoff, Heinrich: *See—*
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Feldkamp, William R.: *See—*
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Feldman, Allan Murry: *See—*
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Feldman, Allan Murry; and Hoffmann, Arthur Kentaro, to American Cyanamid Company. Cyclic nitroxides and process for preparing same. 3,502,692, 3-24-70, Cl. 260-326.3

Feldman, Charles. Wine storage chest. 3,500,649, 3-17-70, Cl. 62-3.

Feldman, Charles: *See—*
Smith, Richard C.; Moulton, Charles W.; and Feldman, Charles,3,516,133.

Feldman, David; and Rao, Tadikonda N., to Bell Telephone Laboratories, Incorporated. Multifrequency signal generator. 3,518,571, 6-30-70, Cl. 331-109.

Feldman, Edward: *See—*
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Feldman, Harold, to Chamberlain Manufacturing Company. Garage door control circuit. 3,539,894, 11-10-70, Cl. 318-463.

Feldman, Jacob R.; Klose, Robert Edward; and MacAllister, Robert V., to General Foods Corporation. Cold water-dispersible starch composition and method for making same. 3,515,591, 6-2-70, Cl. 127-32.

Feldman, Julian: *See—*
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Feldman, Julian; and Saffer, Bernard A., to National Distillers and Chemical Corporation. Dimerization process. 3,499,922, 3-10-70, Cl. 260-465.8

Feldman, Pinchas. Anchor bolts. 3,489,054, 1-13-70, Cl. 85-8.6

Feldman, Samuel M., to International Telephone and Telegraph Corporation. Digital phase lock loop. 3,537,013, 10-27-70, Cl. 328-63.

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Feldmann, Frederick W.; and Hill, Rodney S., to ILC Industries, Inc. Ventilated helmet. 3,496,854, 2-24-70, Cl. 98-1.

Feldmann, Friedrich, to Lawima-Holding A.G. Motor vehicle. 3,550,712, 12-29-70, Cl. 180-53.

Feldmann, Hans-Helmut, to Licentia Patent-Verwaltungs-G.m.b.H. Digital analog condition control device. 3,504,362, 3-31-70, Cl. 340-347.

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Dawihl, Walther; Klingler, Emil A.; and Dore, Erhard, 3,526,485.
Ploetz, Theodor, 3,504,072.

Feldser, Leslie A. Stretch detachable shirt cuff. 3,533,108, 10-13-70, Cl. 2-124.

Feldtkeller, Ernst; and Stein, Karl-Ulrich, to Siemens Aktiengesellschaft. Magnetic memory elements with stacked magnetic layers. 3,518,639, 6-30-70, Cl. 340-174.

Felix, Arthur Martin: *See—*
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Felix, Arthur Martin; Fryer, Rodney Ian; and Sternbach, Leo Henryk, to Hoffmann-La Roche Inc. Oxidation of benzodiazepines with ruthenium tetroxide. 3,546,212, 12-8-70, Cl. 260-239.3

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Fella-Werke Gesellschaft mit beschrankter Haftung: *See—*
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Felle, Karl; and Mondon, Herbert, to Zeiss-Stiftung, Carl, d/b/a Zeiss, Carl. Devices for automatically producing a contour plan. 3,533,338, 10-13-70, Cl. 95-12.

Feller, Fritz, to Rolls-Royce Limited. Rotary piston engine comprising fluid biased vane seals. 3,551,080, 12-29-70, Cl. 418-124.

Feller, Herman H. System of pest control. 3,522,791, 8-4-70, Cl. 116-137.

Fellers, David A., to United States of America, Agriculture. Preparation of protein concentrates by centrifuging a wheat flour slurry in the presence of a cellulosic gum. 3,493,384, 2-3-70, Cl. 99-2.

Fellers, David A., to United States of America, Agriculture. Preparation of protein concentrates from a wheat flour slurry by using a gluten-modifying agent consisting of lecithin or cephalin. 3,498,965, 3-3-70, Cl. 260-112.

Fellers, David A., to United States of America, Agriculture. Preparation of protein concentrates from a wheat slurry. 3,501,451, 3-17-70, Cl. 260-112.

Fellers, David A., to United States of America, Agriculture. Preparation of protein concentrates by centrifuging a wheat flour slurry in the presence of corn oil and soy bean protein or lecithin. 3,542,754, 11-24-70, Cl. 260-112.

Fellig, Josef; and Pecherer, Benjamin, to Hoffmann-La Roche Inc.(Chlorinated α,α,α,-trifluoro-m- tolyl)acetonitriles, acetamides and acetic acids. 3,489,784, 1-13-70, Cl. 260-465.

Fellig, Josef; and Rachlin, Albert Israel. Synergistic insecticidal carbamates with 3,4- methylendioxyphenyl-3-halo-2-propynyl ethers. 3,524,915, 8-18-70, Cl. 424-282.

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Fellowes, Frederick S.: *See—*
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Fellows Gear Shaper Company, The: *See—*
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Fellows, Thomas George; and Perry, Forbes George De Brie, to National Research Development Corporation. Infinitely variable transmission system. 3,494,224, 2-10-70, Cl. 74-691.

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Felson, Ronald, to Swingline Inc. Electrically driven actuator for stapling machines. 3,531,036, 9-29-70, Cl. 227-7.

Felstehausen, Eugene F., to FMC Corporation. Interleaver sheet support means. 3,488,918, 1-13-70, Cl. 53-389.

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Felt, James W.; and Kirn, William H., II., to Collins Radio Company. High speed circuit discontinuity detector including tunnel diode and silicon controlled rectifier means. 3,525,038, 8-18-70, Cl. 324-51.

Feltenberger, Bruce D. Drafting machine. 3,548,503, 12-22-70, Cl. 33-26.

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Felton, Herman R.; and Buehler, Adolph Andrew, to Du Pont de Nemours, E. I., and Company. Method of analyzing binary fluid mixtures and device therefor. 3,535,915, 10-27-70, Cl. 73-25.

Felton, Mickey L., to Esterline Corporation. Constant level inking system. 3,522,607, 8-4-70, Cl. 346-140.

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Felton, S. A., & Son Company, Incorporated: *See—*
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Felts, John A., to Scientific Data Systems, Inc. Rotating magnetic disc storage structure. 3,548,394, 12-15-70, Cl. 340-174.1

Felts, John Alexander, to Scientific Data Systems, Inc. Disk assembly and method of fabricating same. 3,535,777, 10-27-70, Cl. 29-604.

Felts, Wallace M., to Fruehauf Corporation. Container loading system. 3,513,771, 5-26-70, Cl. 100-218.

Felty, Evan J.: *See—*
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Felty, Evan J.; and Sparks, James W., to Xerox Corporation. Process of reducing fatigue in photoconductive glasses. 3,511,649, 5-12-70, Cl. 96-1.
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Feltzin, Joseph, to Atlas Chemical Industries, Inc. Polyester resin from a mixture of dihydric alcohols. 3,538,187, 11-3-70, Cl. 260-861.

Feltzin, Joseph; and Sanderson, Frank T., to Atlas Chemical Industries, Inc. Reaction product of polyester of a polyoxyalkylene ether of a dihydric phenol, and an unsaturated dicarboxylic acid with an epoxy compound and an unsaturated monomer. 3,524,902, 8-18-70, Cl. 260-835.

Femia, Joseph E., to United States of America, Army. Delay action device. 3,523,708, 8-11-70, Cl. 294-83.

Fenar, Olga A. Floatable swimming accessory. 3,528,116, 9-15-70, Cl. 9-347.

Fenault, Philippe, to Institut Francais du Petrole, des Carburants et Lubrifiants. Process for purifying sulfide containing gases and the recovery of sulfur therefrom. 3,516,793, 6-23-70, Cl. 23-225.

Fench, Henri; and Farmer, Richard A. Control and safety device for nuclear reactors. 3,507,748, 4-21-70, Cl. 176-86.

Fend, Fritz, to Fichtel & Sachs A.G. Rotor for a rotary piston engine. 3,489,125, 1-13-70, Cl. 123-8.

Fend, Heinrich, to Werkzeugmaschinenfabrik Oerlikon Buhrle & Co. Device for resuming weaving on a wave weaving loom. 3,498,336, 3-3-70, Cl. 139-12.

Fend, Heinrich; and Nemethy, Ferenc V., to Werkzeugmaschinenfabrik Oerlikon Buhrle & Co. Jacquard machine with electromagnetically controlled healds. 3,499,473, 3-10-70, Cl. 139-59.

Fend, Kurt. Writing, painting or drawing utensil with a moist nib. 3,525,573, 8-25-70, Cl. 401-108.

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Fendel, Kurt: *See*—
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Fender, Clarence L., to Columbia Broadcasting System, Inc. Vibrato device and stringed instrument incorporating the same. 3,500,711, 3-17-70, Cl. 84-313.

Fender, Clarence L., to Columbia Broadcasting System, Inc. Tiltable guitar neck incorporating thrust-absorbing, pivot and locking element. 3,550,496, 12-29-70, Cl. 84-293.

Fendley, James R., Jr., to RCA Corporation. Laser tube construction. 3,522,551, 8-4-70, Cl. 331-94.5

Fendt, Hermann: *See*—
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Fener, Alfred. Heat-sealing apparatus for thermoplastic films, controlled by the temperature attained by the work from the heating element and the residual heat of its environment. 3,494,816, 2-10-70, Cl. 156-359.

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Fengler, Werner H. Anti-backlash speed-reduction gearset. 3,494,215, 2-10-70, Cl. 74-409.

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Fenicchia, Stephen. Portable horseshoe pit.,3,547,442, 12-15-70, Cl. 273-104.

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Fenn, Henry A., to British Lighting Industries Limited. Lamp having twin filaments and integral filament legs mounted in a bridge. 3,548,244, 12-15-70, Cl. 313-331.

Fenn, James E., to Oxy-Dry International Inc. Anti-offset powder comprising dextrose powder and silicone resin treated starch and method of preventing offset from freshly printed papers. 3,491,036, 1-20-70, Cl. 260-9.

Fenn, John James, to Benjamin Electric Limited, The. Heat sinks for electric lamps. 3,541,492, 11-17-70, Cl. 339-52.

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Fennell, Lewis Harvey. Automotive headlamp with integral cleaning system. 3,493,804, 2-3-70, Cl. 313-110.

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Fenner, Ernest A., to Bruce Industries, Inc. Fluorescent lighting system with reflectors for eliminating end shadows. 3,535,505, 10-20-70, Cl. 240-7.35

Fenner, Gunther E., to General Electric Company. Frequency controlled semiconductor junction laser. 3,504,302, 3-31-70, Cl. 332-7.51

Fenner, Gunther E., to General Electric Company. Infrared intensity modulator wherein the optical absorption spectrum of cadmium telluride doped with iron ions is varied. 3,516,728, 6-23-70, Cl. 350-160.

Fenner, Gunther E., to General Electric Company. Semiconductor laser beacon for rotating an output beam. 3,534,290, 10-13-70, Cl. 331-94.5

Fenske, Ellsworth R., to Universal Oil Products Company. Process for the production of a monoalkylated aromatic hydrocarbon. 3,494,971, 2-10-70, Cl. 260-671.

Fenske, Ellsworth R., to Universal Oil Products Company. Method and apparatus for analyzing hydrocarbon compositions. 3,533,746, 10-13-70, Cl. 23-230.

Fenske, Ellsworth R., to Universal Oil Products Company. Method for obtaining samples at high temperature and high pressure. 3,550,451, 12-29-70, Cl. 73-422.

Fenske, Ellsworth R.; and McLaughlin, James H., to Universal Oil Products Company. Method for analyzing hydrocarbon compositions. 3,533,745, 10-13-70, Cl. 23-230.

Fenske, Ellsworth R.; and Pasik, Leonard F., to Universal Oil Products Company. Method and apparatus for analyzing hydrocarbon compositions. 3,531,255, 9-29-70, Cl. 23-230.

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Fenske, Howard D. Earth mover with powered auger combination. 3,533,173, 10-13-70, Cl. 37-4.

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Fenster, I., & Sons, Inc.: *See*—
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Fenster, Paul, to Sperry Rand Corporation. Wideband wave trapping antenna having a time limited impulse response. 3,545,002, 12-1-70, Cl. 343-830.

Fenster, Stanley C.: *See*—
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Fenstermaker, Ronald E.; and Swanson, Richard M., to Bell Telephone Laboratories, Incorporated. Call rerouting equipment. 3,549,816, 12-22-70, Cl. 179-27.

Fenton, Alvin P., to Kohler Co. Engine lubrication system. 3,523,592, 8-11-70, Cl. 184-6.

Fenton Art Glass Company, The: *See*—
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Fenton, Donald M., to Union Oil Company of California. Production of hydrogen from carbon monoxide and water in alkaline solutions. 3,490,872, 1-20-70, Cl. 23-213.

Fenton, Donald M., to Union Oil Company of California. Hydrocarboxylation of certain conjugated diolefin compounds. 3,509,209, 4-28-70, Cl. 260-533.

Fenton, Donald M., to Union Oil Company of California. Preparation of carboxylic anhydrides. 3,513,180, 5-19-70, Cl. 260-398.

Fenton, Donald M., to Union Oil Company of California. Ethylene-carbon monoxide copolymers. 3,530,109, 9-22-70, Cl. 260-94.9

Fenton, Donald M., to Union Oil Company of Caliornia. Hydrocarboxylation of olefins. 3,530,155, 9-22-70, Cl. 260-413.

Fenton, Donald M., to Union Oil Company of California. Process for preparation of olefins. 3,530,198, 9-22-70, Cl. 260-682.

Fenton, Donald M., to Union Oil Company of California. Production of hydrogen from carbon monoxide and water under liquid phase reaction conditions in the presence of a basic nitrogen compound. 3,539,298, 11-10-70, Cl. 23-213.

Fenton, Donald M.; and Wolgemuth, Larry G., to Union Oil Company of California. Hydrocarbon olefin oxidation. 3,518,285, 6-30-70, Cl. 260-348.5

Fenton, Ian. System for uniform printing of intelligence spoken with different enunciations. 3,536,837, 10-27-70, Cl. 179-1.

Fenton, Leonard. Stomatic appliance. 3,520,301, 7-14-70, Cl. 128-283.

Fenton, Roger Wakefield, to Marconi Company Limited, The. Signal mixing arrangements using proportional closing of sampling switches. 3,530,234, 9-22-70, Cl. 178-6.

Fenton, Sidney Desmond, to Storey Brothers and Company Limited. Car seats. 3,506,308, 4-14-70, Cl. 297-453.

Fenton, Wilmer C.; and Rosena, Anthony J., to Fenton Art Glass Company, The. Candle bowl. 3,547,569, 12-15-70, Cl. 431-295.

Fentress, Crosby E.: *See*—
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Poitras, Edward J.; and Walbridge, Lyman H., 3,496,338.
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Fenwick, Charles A., to Collins Radio Company. Horizontal situation indicator with non-linear compass card. 3,538,881, 11-10-70, Cl. 116-129.

Fenwick, Jay G., to Streater Industries, Inc., mesne. Interlocking joints for structural framing members. 3,532,370, 10-6-70, Cl. 287-56.

Fenwick, Richard C., to Collins Radio Company. Antenna current distribution measurement system. 3,548,310, 12-15-70, Cl. 325-67.

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Fenwick, Ronald P. Ladies hose support. 3,491,416, 1-27-70, Cl. 24-245.

Fenyes, Joseph G. E., to Chevron Research Company. N-phenyl sulfonamides. 3,549,700, 12-22-70, Cl. 260-551.

Fenyes, Joseph G. E.: *See*—
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Kohn, Gustave K.; and Fenyes, Joseph G. E.,3,532,706.
Kohn, Gustave K.; and Fenyes, Joseph G. E.,3,532,707.

Feola, Valentine. Ice cube maker assembly. 3,538,720, 11-10-70, Cl. 62-352.

Ferag, Fehr & Reist AG: *See*—
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Ferasaki Denki Sangyo Kabushiki Kaisha: *See*—
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Ferber, David. Electrical readout of records utilizing a record medium with conductive reference lines and a conductive marking line. 3,491,344, 1-20-70, Cl. 340-173.

Ferber, Jack R. Method and apparatus for administering hypodermic injections. 3,530,492, 9-22-70, Cl. 128-221.

Ferber, Malcolm F. Mowing implement including a series of slashing heads. 3,548,572, 12-22-70, Cl. 56-192.

Ferch, Richard L.; Szentirmai, George; and Thomas, Lee C., to Bell Telephone Laboratories, Incorporated. Gyrator network using operational amplifiers. 3,501,716, 3-17-70, Cl. 333-80.

Ferdelman, Donald C., to General Motors Corporation. Control for heat pump. 3,537,509, 11-3-70, Cl. 165-29.

Ferdig, Earl W., to McMurray, George F. Mold for forming roller assemblies and the like. 3,496,611, 2-24-70, Cl. 18-42.

Ferdinand, Irwin J., to Hirsh Company. Torsion bar for moderate exercise of arms and shoulder. 3,510,130, 5-5-70, Cl. 272-67.

Ferdinand, Irwin J.; Handler, Milton E.; and Kulbersh, Irwin R., to Hirsh, S. A., Manufacturing Co. Shelf end-stop for steel shelving. 3,507,228, 4-21-70, Cl. 108-144.

Ferdon, Gilbert Douglas: *See*—
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Ference, Joseph, to Corning Glass Works. Strengthening of photosensitive glass articles. 3,519,522, 7-7-70, Cl. 161-2.

Ferens, Marcella. Hair curlers. 3,500,837, 3-17-70, Cl. 132-40.

Fergason, James L.: *See*—
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Fergason, James L.; and Goldberg, Newton N., to Westinghouse Electric Corporation. Hysteretic cholesteric liquid crystalline compositions and recording devices utilizing such compositions. 3,529,156, 9-15-70, Cl. 250-83.

Fergason, Rector C. Cotton harvester. 3,499,274, 3-10-70, Cl. 56-44.

Fergason, Rector C., to Allis-Chalmers Manufacturing Company. Cooling and cleaning of stripper bushings. 3,500,621, 3-17-70, Cl. 56-44.

Fergason, Rector C., to Allis-Chalmers Manufacturing Company. Cotton harvester stripper bar. 3,501,903, 3-24-70, Cl. 56-44.

Fergason, Rector C., to Allis-Chalmers Manufacturing Company. Moistener for cotton picking spindles of cotton harvester. 3,505,799, 4-14-70, Cl. 56-41.

Fergason, Rector C., to Allis-Chalmers Manufacturing Company. Moistener for cotton picking spindles of cotton harvester. 3,546,862, 12-15-70, Cl. 56-41.

Ferge, Daniel T.; Bader, Patrick J.; and Woollard, Robert F., to Dow Chemical Company, The. Fuel gas supply and dispensing kit. 3,494,713, 2-10-70, Cl. 431-343.

Fergen, Robert F. Construction of building wall panels. 3,498,014, 3-3-70, Cl. 52-284.

Fergerson, William, to Associated Sales Enterprises, Inc. Brush means for vehicle cleaning apparatus. 3,528,119, 9-15-70, Cl. 15-21.

Fergle, Donald J., to Eaton Yale & Towne, Inc. Steering columns. 3,487,710, 1-6-70, Cl. 74-492.

Fergle, Donald J., to Eaton Yale & Towne, Inc. Explosive actuated brake. 3,547,232, 12-15-70, Cl. 188-110.

Fergle, Donald J.; and Benedict, Dale K., to Eaton Yale & Towne, Inc. Sleeve clutch. 3,547,244, 12-15-70, Cl. 192-74.

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Ferguson, Charles F., to United States of America, Navy. Universal vulcanizing mold. 3,496,609, 2-24-70, Cl. 18-36.

Ferguson, Eric Tapley: *See*—
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Ferguson, Eric Tapley, to U.S. Philips Corporation, mesne. Device for applying a plurality of equal elements to a semiconductor substrate by means of a plurality of unequal masks. 3,536,380, 10-27-70, Cl. 350-199.

Ferguson, George Nathan: *See*—
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Ferguson, Harold G., to Progressive Industries Corporation. Negative feeder for photographic printer. 3,537,790, 11-3-70, Cl. 355-41.

Ferguson, Harold W., to Stanley Works, The. Fluid control systems for powered panels. 3,545,337, 12-8-70, Cl. 91-38.

Ferguson, Harry, Research Limited: *See*—
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Ferguson, Hille & Associates, Inc.: *See*—
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Ferguson, Ian Agar, to Rabone Chesterman Limited. Folding rules. 3,503,130, 3-31-70, Cl. 33-105.

Ferguson, James F., to Westinghouse Air Brake Company. Fluid pressure brake apparatus for remote multiple unit locomotive trains. 3,525,556, 8-25-70, Cl. 303-67.

Ferguson, James V.: *See*—
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Ferguson, Joseph B., Jr.; and Westwood-Booth, Ian, to Federated Waste & Pollution Control Corporation. Waste material treating apparatus. 3,537,689, 11-3-70, Cl. 259-2.

Ferguson, Keith Desmond: *See*—
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Ferguson, Kenneth F., to Hunt-Wesson Foods, Inc. Forklift truck and push-pull unit therefor. 3,516,641, 6-23-70, Cl. 254-122.

Ferguson, Lawrence A.; Jones, Robert K.; and Tates, Donald W., to Xerox Corporation. Xerographic reproducing apparatus. 3,542,467, 11-24-70, Cl. 355-8.

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Ferguson, Patrick E., to Magnavox Company, The. Enhanced transverse Kerr magneto-optical transducer. 3,545,840, 12-8-70, Cl. 350-151.

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Ferguson, Robert M.; Freeman, Claude C.; and Carpenter, Lindell O., to Container Corporation of America. Animated toy device. 3,496,673, 2-24-70, Cl. 46-126.

Ferguson, Ronald. Wheel lifter. 3,517,959, 6-30-70, Cl. 294-67.

Ferguson, Stuart R.: *See*—
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Fergusson, Gordon J., to Scientific Research Instruments Corporation. Method and analyzer for hydrogen, carbon monoxide and hydrocarbons in exhaust gases. 3,549,327, 12-22-70, Cl. 23-232.

Fergusson, Ian L., to Thomas & Betts Corporation. Removable stack interconnection system. 3,492,538, 1-27-70, Cl. 317-101.

Fergusson, Keith Arnold. Apparatus for castrating or docking animals. 3,547,124, 12-15-70, Cl. 128-303.

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Fermi, Rudolph, to Troeger, Andrew, & Company. Casting assembly apparatus. 3,550,761, 12-29-70, Cl. 199-61.

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Fernald, Herbert B.; Gall, William; Gwynn, Bernard H.; and Nelson, Elwood E., to Gulf Research & Development Company. Method for reduction of polymer formation in a process for converting ethylene to alpha olefins. 3,502,741, 3-24-70, Cl. 260-683.15
Fernald, Herbert B.; Gall, William; and Kresge, Alfred N., to Gulf Research & Development Company. Method for determining the extent of conversion of ethylene to alpha olefins. 3,531,253, 9-29-70, Cl. 23-230.
Fernald, Herbert B.; Hay, Russell G.; and Kresge, Alfred N., to Gulf Research & Development Company. Conversion of ethylene to alpha olefins in the presence of a solvent. 3,510,539, 5-5-70, Cl. 260-683.15
Fernand, Joseph Redmond; and Puddington, Ira Edwin, to Canadian Patents and Developments Limited. Hollow article production. 3,528,809, 9-15-70, Cl. 75-222.
Fernandes, Anthony M. Cutting guide. 3,509,633, 5-5-70, Cl. 33-174.
Fernandes, Jacinto; and Crimmins, David J. Electrical connector of sintered powdered conductive material. 3,488,432, 1-6-70, Cl. 174-71.
Fernandes, Joseph F.; and Pfouts, Robert R., to United Aircraft Products, Inc. Heat exchange apparatus. 3,543,845, 12-1-70, Cl. 165-168.
Fernandes, Joseph; Lane, Frank B.; and De Groote, Raymond S., to United Aircraft Products, Inc. Liquid separator. 3,490,209, 1-20-70, Cl. 55-430.
Fernandez, Arthur; and Humphrey, David H. Hinge structure. 3,524,216, 8-18-70, Cl. 16-128.
Fernandez, John Jame; and Justice, Lawrence M. Self-cleaning smog control filter and fire trap for internal combustion engines. 3,494,339, 2-10-70, Cl. 123-119.
Fernandez, Juan Manuel, to Valmarco Sociedad Anonima Industrial & Commerciai. Apparatus for cleaning water. 3,490,596, 1-20-70, Cl. 210-400.
Fernando, Maurice M., to Singer Company, The. Externally switched variable attenuators. 3,538,481, 11-3-70, Cl. 338-201.
Fernbach, Hans R. Rolling mills for rolling metal. 3,534,577, 10-20-70, Cl. 72-245.
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Fernholz, Hans; and Neu, Hermann, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process for the manufacture of sorbic acid. 3,499,029, 3-3-70, Cl. 260-526.
Fernholz, James A.; and White, Lyall B., to White, L. B., Company, Inc. Wheeled hand truck. 3,499,658, 3-10-70, Cl. 280-47.2
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Ferrara, John J., to Honeywell Inc. Regulation tube control apparatus with compensation of load current and grid current. 3,551,785, 12-29-70, Cl. 323-4.
Ferrara, Peter J.; and Snodgrass, James A., said Snodgrass assor. to said Ferrara. Process for treating flour and starch to eliminate free SH groups. 3,519,441, 7-7-70, Cl. 99-216.
Ferrara, Thomas. Pet feeder bowl having replaceable insert. 3,527,192, 9-8-70, Cl. 119-61.
Ferrari, Andres, to Technicon Corporation. Pressure relief valve and alarm. 3,529,625, 9-22-70, Cl. 137-554.
Ferrari, Arthur M. Multiple band saw. 3,545,504, 12-8-70, Cl. 143-22.
Ferrari, Giorgio; and Casagrande, Cesare, to Siphar S.A.Imidazo-1,2-α pyridine-2,3-dicarboxylates. 3,539,582, 11-10-70, Cl. 260-295.
Ferrari, Harry M., to Westinghouse Electric Corporation. Internal gas adsorption means for nucleat fuel element. 3,519,537, 7-7-70, Cl. 176-68.
Ferrari, Leonard A., to Polaroid Corporation. Electrical pulse source. 3,505,540, 4-7-70, Cl. 307-260.
Ferrari, Rodolfo; Ghielmetti, Giuseppe; and Magnaghi, Sergio, to SpA-Societa Prodotti Antibiotici S.p.A. Erythromucin tetracycline containing antibiotic derivatives. 3,531,460, 9-29-70, Cl. 260-210.
Ferrari, Rodolfo; Ghielmetti, Giuseppe; and Notafianni, Aurelio Filippo, to SpA Societa Prodotti Antibiotic S.p.A. Amino acid salts of hexose-phosphates. 3,497,497, 2-24-70, Cl. 260-234.
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Ferrell, Jared F., to National Semiconductor Corporation. Semiconductor surface inversion protection. 3,519,897, 7-7-70, Cl. 317-234.
Ferrell, Robert A., to KCL Corporation. Package for compressed materials. 3,521,742, 7-28-70, Cl. 206-46.
Ferrell, Robert C.; and Skelley, John W., to General Motors Corporation. Flexible coupling. 3,543,538, 12-1-70, Cl. 64-13.
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Ferri, Antonio; and Lipfert, Frederick W., to General Applied Science Laboratories, Inc. Rocket action turbofan engine. 3,496,725, 2-24-70, Cl. 60-204.
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Ferri, Johann Walter, to Luwa Ltd. Self-cleaning fan. 3,490,685, 1-20-70, Cl. 230-132.
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Ferrick, Joseph G. Page holder and book marker device. 3,513,806, 5-26-70, Cl. 116-119.
Ferriday, Percival Victor, to Carburetion Units Limited. Internal combustion engines. 3,509,860, 5-5-70, Cl. 123-122.
Ferrier, Duncan Cameron, to Broadbent, Thomas, & Sons Limited. Washer extractors for laundry work. 3,529,448, 9-22-70, Cl. 68-24.
Ferrier, Herman A., Jr., to Ampex Corporation. Anticoincident circuit. 3,532,994, 10-6-70, Cl. 328-109.
Ferrier, Herman A., Jr., to Ampex Corporation. Eccentricity cancelling optical tachometer. 3,538,339, 11-3-70, Cl. 250-230.
Ferrier, Nicholas J., to Smith, A. O., Corporation. Automatic weld tracer with lateral electrode positioning for lap joints. 3,529,125, 9-15-70, Cl. 219-125.
Ferrier, Raymond W. Occluder for blood vessel or flexible tube. 3,507,270, 4-21-70, Cl. 128-2.05
Ferrieu, Gilbert Marcel. Controlled linear half-wave or full-wave alternating current signal detector using linear amplifier combined with non-linear feedback circuit. 3,517,267, 6-23-70, Cl. 329-101.
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Ferris, Donald L.; and Howard, George J., Jr., to United Aircraft Corporation. Pitch and fold mechanism for a tiltable rotor usable in an aircraft capable of helicopter and propeller modes of operation. 3,528,630, 9-15-70, Cl. 244-7.
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Ferris, Joseph E.; and Zimmerman, Wiley E., to United States of America, Army, mesne. Broadband, high gain antenna with relatively constant beamwidth. 3,514,781, 5-26-70, Cl. 343-840.
Ferris, Laurence W., to United States of America, Navy. Ramp for docking seaplanes. 3,503,357, 3-31-70, Cl. 114-43.5
Ferris, Lockwood W., deceased (by Collins, Tracy, Bank and Trust Company; trustee), to National Lead Company. Recovery of magnesium values from magnesium and sulfate containing aqueous salt solutions. 3,489,513, 1-13-70, Cl. 23-121.
Ferris, Maxime. Teaching machine. 3,497,968, 3-3-70, Cl. 35-48.
Ferris, Ray L., to Pullman Incorporated. Lock indicator for fifth wheel trailer hitch. 3,536,282, 10-27-70, Cl. 248-119.
Ferris, Ray L.; and Wille, Herbert S., to Pullman Incorporated. Fifth wheel plate for foldable stanchion. 3,493,207, 2-3-70, Cl. 248-119.
Ferris, Robert G., to Starline, Inc. Silo unloader with continuously variable load responsive drive control. 3,539,058, 11-10-70, Cl. 214-17.
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Ferris, Seymour W., deceased (by Ferris, Lucretia G., sole executrix); Clelland, James B.; and Black, Ernest P., to Sun Oil Company. Compositions and articles containing cross-linked asphaltene. 3,497,372, 2-24-70, Cl. 106-281.
Ferris, Thomas George; Budd, Richard Edgar; Easterling, Robert Eugene; and Wright, William Joseph. Electrophoresis device. 3,499,833, 3-10-70, Cl. 204-299.
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Ferro, Daniel T. Method of varying an ornamental element of a earring. 3,504,507, 4-7-70, Cl. 63-12.
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Fesco, John J., to Studley Paper Company, Inc. Vacuum cleaner filter bag. 3,491,522, 1-27-70, Cl. 55-376.
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Fesl, Franz. Sports boot, especially ski boot. 3,522,668, 8-4-70, Cl. 36-2.5
Fess, Emil; and Schumann, Fritz, to Deutscher Spinnereimaschinenbau Ingolstadt. Process and apparatus for drawing and twisting fibrous slivers. 3,503,197, 3-31-70, Cl. 57-36.
Fessard, Roland, to Compagnie Francaise de Television. Demodulating circuit for waves frequency modulated by signals of the video type. 3,518,362, 6-30-70, Cl. 178-5.4
Fessenden, De Witt M. Blender and converter. 3,530,843, 9-29-70, Cl. 123-119.
Fessler, Robert Glenn; and Ruby, Philip Randolph, to American Cyanamid Company. Process for producing beta-quinacridones. 3,534,044, 10-13-70, Cl. 260-279.

Fessmann, Gerhard, to Technical Research Co. Smoke producing apparatus and process of producing smoke. 3,513,823, 5-26-70, Cl. 126r59.5

Fest, Christa; and Hammann, Ingeborg, to Farbenfabriken Bayer Aktiengesellschaft. Fluoroacylamino-trichloromethyl- methane derivatives. 3,504,029, 3-31-70, Cl. 260-562.

Fest, Christa; and Hammann, Ingeborg, to Farbenfabriken Bayer Aktiengesellschaft. Thionophosphonic acid esters. 3,544,572, 12-1-70, Cl. 260-250.

Fest, Christa; Hammann, Ingeborg; Stendel, Wilhelm; and Untersteinhofer, Gunter, to Farbenfabriken Bayer Aktiengesellschaft. Phosphoric, phosphonic, thionophosphoric and thionophosphonic acid esters. 3,547,920, 12-15-70, Cl. 260-250.

Fest, Christa; and Hermann, Gunther, to Farbenfabriken Bayer Aktiengesellschaft. N-(Fluoroacetylamino-trichloromethyl)-methyl amines. 3,525,744, 8-25-70, Cl. 260-247.2

Fester, Amos M.; and Brogard, Paul D., to Amos' Gold-N-Good Donut Co., Inc. Doughnut making machine. 3,504,619, 4-7-70, Cl. 99-354.

Fester, Edward R.; and Lechner, Rudolph G., to Heath Company. Mechanism for detachably attaching a runner to a vehicle wheel. 3,521,897, 7-28-70, Cl. 280-13.

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Fether, Donald W. High strength flush joint for oil well casing, or the like. 3,495,854, 2-17-70, Cl. 285-173.

Fetizon, Marcel; and Golfier, Michael, to Societe de Recherches Biologiques D'Asnieres. Process for the oxidation of alcohols and oxidizing agent utilized therein. 3,531,475, 9-29-70, Cl. 260-239.55

Fetner, Campbell B., to Gas Heat Engineering Corporation. Method and apparatus for heat cleaning glass fiber fabric. 3,502,456, 3-24-70, Cl. 65-32.

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Fett, Darrell L., to General Electric Company. Memory flip-flop. 3,514,640, 5-26-70, Cl. 307-289.

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Fetters, Karl L. Boat fenders. 3,528,383, 9-15-70, Cl. 114-220.

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Gebel, Radames K. H.; and Fettis, Henry E.,3,518,416.

Fettweis, Alfred Leo Maria, to International Standard Electric Corporation. Resonant transfer networks with reactive loads. 3,501,593, 3-17-70, Cl. 179-15.

Fettweis, Alfred Leo Maria; Broux, Joseph Antonius; Cool, Charles Gerard Cornelius; and Salade, Robert Pierre Emile Ferdinand, to International Standard Electric Corporation. Impedance network for resonant transfer multiplexing. 3,505,477, 4-7-70, Cl. 179-15.

Fettweis, Alfred Leo Maria: *See*—
Jespers, Paul Gustave Amelie; Chu, Pe Tsi; and Fettweis, Alfred Leo Maria,3,495,076.

Fetzer, Maurice C.: *See*—
Westerman, Edwin J.; and Fetzer, Maurice C.,3,542,606.

Feuell, Edward Albert, to International Standard Electric Corporation. Electrical sampling gates. 3,519,853, 7-7-70, Cl. 307-257.

Feuer, Henry; and Hall, Albert M., to Purdue Research Foundation. Preparation of α,π-dinitrocarboxylic esters. 3,534,074, 10-13-70, Cl. 260-404.5

Feuer, Robert: *See*—
Cole, Robert H.; Nissim, Samuel; Podraza, George V.; and Feuer, Robert,3,518,635.

Feuersanger, Louis. Fuel feed system. 3,498,029, 3-3-70, Cl. 55-257.

Feuling, Bert G.: *See*—
Reid, Orland B.; and Feuling, Bert G.,3,543,706.

Feulner, Walter, to Retobobina Handelsanstalt. Electronic speed synchronizing regulator for direct current motors. 3,522,503, 8-4-70, Cl. 318-314.

Feurstein, Ludwig J.; and Koehn, Fred. Label applying apparatus. 3,497,412, 2-24-70, Cl. 156-364.

Fewell, John H.: *See*—
Fewell, Maurice I., 3,550,294.

Fewell, Maurice I., to Fewell, John H. Grave digger. 3,550,294, 12-29-70, Cl. 37-191.

Fey, Claude; Gaillard, Jean; and Wauquier, Jean-Pierre, to Institut Francois du Petrole des Carburants et Lubrifiants. Process for separating and purifying polyepoxides from their solutions in hydrocarbons. 3,498,933, 3-3-70, Cl. 260-2.

Fey, Edward J., Jr. Expandable frame for painting canvas. 3,529,653, 9-22-70, Cl. 160-374.1

Fey, Robert M., to General Electric Company. Clutch cooling structure. 3,506,101, 4-14-70, Cl. 192-84.

Fezer, Eberhard; and Hohenhinnebusch, Wilhelm, to Fried. Krupp Gesellschaft mit beschrankter Haftung. Hot gas machine. 3,509,718, 5-5-70, Cl. 60-24.

Ffitch, Kenneth William: *See*—
Arnold, Alan; Childs, John Baird; and Ffitch, Kenneth William,3,548,302.

Ffooks, Roger Cambridge, to Conch Ocean Limited. Tanker for liquefied gases. 3,547,301, 12-15-70, Cl. 220-10.

Fial, Felix J. Tool. 3,546,919, 12-15-70, Cl. 72-458.

Fiala, Ferdinand: *See*—
Willim, Fritz; and Fiala, Ferdinand,3,536,122.

Fiala, Harvey E.: *See*—
Pizzurro, Vito F.; Fiala, Harvey E.; De Bottari, Louis A.; Uchizono, Shiro A.; and Rubin, Lowell M.,3,504,182.

Fiandt, Ronald M., to Globe-Union Inc. Deferred action battery. 3,542,599, 11-24-70, Cl. 136-112.

Fiat Societa per Azioni: *See*—
Altissimo, Renato, 3,489,891.
Baldwin, Philip Sidney, 3,490,232.
Franchini, Enzo, 3,538,784.
Giacosa, Dante, 3,544,174.
Gianotto, Pietro, 3,488,462.
Gilardenghi, Biagio, 3,536,872.
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Fiber Industries, Inc.: *See*—
Arguelles, Fernando Alfredo, 3,487,618.
Hefley, Jack Darrell; and West, William Hugo, 3,549,475.
Higgins, Thomas C., 3,506,622.
Kirchner, Carl Edward, Jr.; and Cooper, William Moseley, 3,530,660.
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Watson, George A., 3,542,617.
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Fibre-Weld, Inc.: *See*—
Francisovich, John A., 3,518,952.

Fibreboard Corporation: *See*—
Andrews, Benjamin D., 3,490,611.
Masch, Helmut E. W., 3,521,427.
Pellaton, Ernest C., 3,515,037.
Schafer, George; Theys, Ezra E.; and Morse, Hugh B., 3,535,987.

Fibreglass Limited: *See*—
Morrison, Walter; Spencer, Henry; and Mason, Allan Frank, 3,502,767.
Pook, Francis Harold, 3,498,166.
Warner, Frederick E.; and Rice, Alexander, P., 3,528,220.

Fibrelite Corporation: *See*—
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Fichtel & Sachs A.G.: *See*—
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Bergander, Otto; and Geibel, Peter, 3,534,837.
Fend, Fritz, 3,489,125.
Gimmler, Joachim; and Glock, Winfried, 3,517,789.
Herold, Werner, 3,550,234.
Loffelholz, Herbert, 3,503,209.
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Schwerdhofer, Hans Joachim, 3,534,630.
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Fichtel & Sachs Aktiengesellschaft: *See*—
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Fichten, James P.; and Gallet, Jack R., to Weyerhaeuser Company. Manufacturing plant data acquisition system. 3,509,539, 4-28-70, Cl. 340-172.5

Fichtenberg, Willie W. Vertically adjustable wheeled trailer. 3,536,339, 10-27-70, Cl. 280-414.5

Fichter, Harry L., Jr., to Horizons Incorporated, a division of Horizons Research Incorporated. Dry working black image compositions. 3,493,376, 2-3-70, Cl. 96-90.

Fichter, Harry L., Jr.; and Lewis, James M., to Horizons Incorporated, a division of Horizons Research Incorporated. Dry working black image compositions comprising organic halogen compounds and ethylene compounds. 3,510,304, 5-5-70, Cl. 96-48.

Fichter, Harry L., Jr.: *See*—
Fotland, Richard A.; and Fichter, Harry L., Jr.,3,510,300.

Fichtl, Karl, to Keller & Knappich G.m.b.H. Vehicle for carrying waste products. 3,490,624, 1-20-70, Cl. 214-83.32

Fichtner, Friedrich: *See*—
Alpers, Gunter; Gerber, Jurgen; Fichtner, Friedrich; and Diviak, Karl-Heinz,3,496,796.
Gerber, Jurgen; and Fichtner, Friedrich,3,500,865.

Fichtner, Roland H., to Electrohome Limited. Stereophonic F.M. receivers having automatic switching means for stereo reception. 3,535,459, 10-20-70, Cl. 179-15.

Fick, Bruce R., to General Electric Company. Cutaneous stimuli sensor and transmission network. 3,535,711, 10-27-70, Cl. 3-1.2

Fick, Herbert J.: *See*—
Bratton, Francis H.; Fick, Herbert J.; and Mahagnoul, Edward J.,3,534,147.
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Ficken, Donald D.: *See*—
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Ficker, Manfred Karl, to AMP Incorporated. Shielded video 2x2 switch. 3,504,188, 3-31-70, Cl. 307-18.

Fickert, Gunther: *See*—
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Fickes, Robert E.: *See*—
Aument, George C.; Radcliffe, Wayne K.; and Fickes, Robert E.,3,500,130.

Fiddler, Theodore E. Actuation devices for adjusting and holding the position of a mechanism. 3,508,634, 4-28-70, Cl. 188-1.

Fidelity Bank, The: *See*—
McClister, Harry A.; and Fidelity Bank, The; executor,3,517,878.

Fidelity File Box, Inc.: *See*—
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Fidelman, Paul H., to Matra Corporation. Tobacco smoke filter device. 3,527,235, 9-8-70, Cl. 131-264.

Fidi, Werner, to Akustische u. Kino-Gerate Gesellschaft m.b.H. Delay device particularly for the production of artificial reverberation. 3,517,344, 6-23-70, Cl. 333-30.

Fidi, Werner; Marschall, Otto; and Klemencic, Michael, to Akustische u. Kino-Gerate Gesellschaft m.b.H. Transducer for converting electrical oscillations into torsional vibration and vice versa. 3,526,793, 9-1-70, Cl. 310-36.

Fidler, Jay W., to Hercules Chemical Co., Inc. Method for unclogging conduits. 3,537,898, 11-3-70, Cl. 134-22.

Fidler, Ridley, to United Aircraft Corporation. Multiple hoist synchronization system. 3,510,107, 5-5-70, Cl. 254-173.

Fidos, Henryk: *See*—
Doll, Justin; Fidos, Henryk; Forkel, Dirk; and Schreiner, Horst,3,524,493.

Fiebel, Ottmar, J.; and Rosen, Franklin D., to General RF Fittings, Inc. Precision coaxial connector. 3,496,496, 2-17-70, Cl. 333-33.

Fieber, Walter F., to FMC Corporation. Hydrostatic transmission control. 3,528,311, 9-15-70, Cl. 74-481.

Fiecchi, Alberto, to Collins Chemical Co., Inc.Method of preparing α-methyl-α-isobutyl- butyrolactone. 3,530,149, 9-22-70, Cl. 260-343.6

Fiecchi, Alberto; Nano, Gian Mario; Cabella, Paolo; and Cicognani, Giorgio, to Collins Chemical Co., Inc. Method of preparing vanillin from eugenol. 3,544,621, 12-1-70, Cl. 260-505.

Fiechter, Rene A. Indicator device for continually monitoring deviations from the correct elevation and gauge of railroad tracks. 3,505,742, 4-14-70, Cl. 33-145.

Fiechtner, Elmer J. Violin rest device. 3,532,023, 10-6-70, Cl. 84-279.

Fiedler, Allen F., to Gould-National Batteries, Inc. Lead-acid batteries with magnesium metal for activating at low temperatures. 3,496,019, 2-17-70, Cl. 136-26.

Fiedler, Armin, to Tastee Freez Industries, Inc. Apparatus for producing and dispensing frozen and semiliquid products. 3,517,524, 6-30-70, Cl. 62-188.

Fiedler, Willy A.; Kretschmer, Willi K.; and Honzik, George A., to Lockheed Aircraft Corporation. Hot gas generator utilizing a mono-propellant fuel. 3,533,233, 10-13-70, Cl. 60-398.2

Fiegel, Harry J., Jr., to Kelso Marine, Inc. Apparatus for overturning and/or transversely conveying structural shapes. 3,529,710, 9-22-70, Cl. 198-33.

Fiegler, Richard, to Institut fur Werkzeugmaschinen. Tool replacing device for machine tools having a working spindle and movable in three coordinated axes. 3,541,677, 11-24-70, Cl. 29-568.

Field, Allen I.; and Field, Sidney P. Box and handle for same. 3,542,281, 11-24-70, Cl. 229-52.

Field, Crosby. Moving band icemaker with lubricant purification. 3,491,543, 1-27-70, Cl. 62-72.

Field, Crosby. Method and apparatus for freezing products and the frozen products. 3,528,257, 9-15-70, Cl. 62-72.

Field, Donald, to Holland-Rantos Company, Inc., mesne. Moist packaged article and equipment for making same. 3,500,611, 3-17-70, Cl. 53-183.

Field Emission Corporation: *See*—
Brewster, John L., 3,551,677.

Field, Everett J.; Caswell, Arthur S.; and Gorin, Eugen, to I-T-E Imperial Corporation, mesne. Vacuum recloser having lightweight, rugged skeletal housing. 3,502,834, 3-24-70, Cl. 200-144.

Field, Frank P., to Field Manufacturing Corporation. Shelf divider mechanisms. 3,497,081, 2-24-70, Cl. 211-184.

Field, Fred Walker; and Cayton, David Walter, to Deere & Company. Electronically controlled row crop thinning machine. 3,543,860, 12-1-70, Cl. 172-6.

Field, Frederick C., Jr., to Du Pont de Nemours, E. I., and Company. Apparatus for high speed drafting. 3,487,619, 1-6-70, Cl. 57-51.

Field, George Francis; and Sternbach, Leo Henryk, to Hoffmann-La Roche Inc. Process for the preparation of 5-phenyl-3H-1,4-benzodiazepines and novel intermediates. 3,492,290, 1-27-70, Cl. 260-239.

Field, George Francis; and Sternbach, Leo Henryk, to Hoffmann-La Roche Inc. 1,3,5-Benzoxadiazepines. 3,502,694, 3-24-70, Cl. 260-333.

Field, George Francis; and Sternbach, Leo Henryk, to Hoffmann-La Roche Inc. Substituted 4-phenyl quinazoline and 4-phenyl quinazoline 3-oxide and preparation thereof. 3,503,975, 3-31-70, Cl. 260-251.

Field, George Francis; and Sternbach, Leo Henryk, to Hoffmann-La Roche Inc. 1,2-unsaturated-quinazoline 3-oxides. 3,509,145, 4-28-70, Cl. 260-251.

Field, George Francis; and Sternbach, Leo Henryk, to Hoffmann-La Roche Inc. Process for the preparation of substituted 4-phenyl or 4-pyridyl-1,2-dihydroquinazoline compounds and novel substituted 4-pyridyl-1,2-dihydroquinazoline products. 3,515,724, 6-2-70, Cl. 260-251.

Field, George Francis; and Sternbach, Leo Henryk, to Hoffmann-La Roche Inc.Preparation of β-oximes. 3,523,972, 8-11-70, Cl. 260-566.

Field, Harold S., to Geophysical Research Corporation. Method and apparatus for the remote indication of data. 3,513,460, 5-19-70, Cl. 340-177.

Field, Jack W. Snap apart key holder. 3,503,235, 3-31-70, Cl. 70-456.

Field, Joseph H. Nerve holder and guide for perpendicular cutting. 3,492,994, 2-3-70, Cl. 128-305.

Field, Joseph H.: *See*—
Myers, John G.; and Field, Joseph H.,3,551,093.

Field, Joseph P.: *See*—
Erwin, Edson L.; Field, Joseph P.; Mahood, Robert J.; and Cohen, Roger,3,529,094.

Field, Joseph P., to International Telephone and Telegraph Corporation. Automatic switching system having reduced delay times. 3,517,134, 6-23-70, Cl. 179-18.

Field Manufacturing Corporation: *See*—
Field, Frank P., 3,497,081.

Field, Michael Frank, to Dominion Engineering Works, Limited. Cut-off table with sequentially actuable roll mounting means. 3,511,489, 5-12-70, Cl. 266-23.

Field, Nathan D. Atlantic Richfield Company Bis-allyl carbonates and polymers thereof. 3,497,478, 2-24-70, Cl. 260-77.5

Field, Nathan D.; and Lorenz, Donald H., to GAF Corporation. Process of preparing powdery copolymers of vinyl ethers and maleic anhydride using polymeric anti- clumping additives derived from vinyl alkoxyalkyl ethers. 3,532,771, 10-6-70, Cl. 260-875.

Field, Nathan D.; and Williams, Earl P., to GAF Corporation. Novel anhydride interpolymers. 3,499,876, 3-10-0, Cl. 260-78.5

Field, Nathaniel L., III; and Waddell, Richard E., to Bell Telephone Laboratories, Incorporated. Code transmitter utilizing a printed circuit disc. 3,509,287, 4-28-70, Cl. 179-90.

Field, Philip M.; and Nemesnyik, John C., to Beseler, Charles, Company. Overhead projector. 3,515,476, 6-2-70, Cl. 353-87.

Field, Sheldon B.; and Bridges, Thomas F., to McMullen, John J., Associates, Inc. Stabilization system for liquid cargo ships. 3,499,410, 3-10-70, Cl. 114-125.

Field, Sheldon B.; and Pangalila, Frans V. A., to Flume Stabilization Systems, Inc. Underdamped passive ship stabilizer with deactivating means. 3,521,594, 7-21-70, Cl. 114-125.

Field, Sheldon B.; Pangalila, Frans V.; Miller, Richard Lawrence; and Grigoraki, Nicholas Mark, to Flume Stabilization Systems, Inc. Variably damped passive tank stabilizer. 3,516,377, 6-23-70, Cl. 114-125.

Field, Sidney P.: *See*—
Field, Allen I.; and Field, Sidney P.,3,542,281.

Field, William J. Spring-loaded hinge pin. 3,538,538, 11-10-70, Cl. 16-189.

Fieldcrest Mills, Inc.: *See*—
MacIsaac, John T.; and Sumpter, Charles B., Jr., 3,521,676.

Fielden Electronics (Australia) Proprietary Limited: *See*—
Leach, Ian Campbell; and Sack, Kevin Howard, 3,516,282.

Fielder, John Bunnell; and Freeman, Norman Dale, to Foster Wheeler Corporation. Apparatus for welding circumferential seams. 3,509,302, 4-28-70, Cl. 219-60.

Fielder, John Bunnell; and Freeman, Norman Dale, to Foster Wheeler Corporation. Tube panel welding apparatus. 3,527,918, 9-8-70, Cl. 219-125.

Fielder, John Bunnell; Freeman, Norman Dale; and Harter, De Myrl M., to Foster Wheeler Corporation. Method of butt welding tubes. 3,521,020, 7-21-70, Cl. 219-60.

Fielding, Brian Crosbie, to Imperial Chemical Industries Limited. Production of unsaturated aldehydes and ketones. 3,507,922, 4-21-70, Cl. 260-604.

Fielding, Eric; O'Hea, Jerome; and Cole, Brian M., to Colt Ventilation and Heating Limited. Rain detecting device. 3,500,059, 3-10-70, Cl. 307-118.

Fielding, Harold Crosbie, to Imperial Chemical Industries Limited. Hydrazine derivatives of oligomers of tetrafluoroethylene and hexafluoropropene. 3,502,726, 3-24-70, Cl. 260-583.

Fielding, Harold Crosbie, to Imperial Chemical Industries Limited. Nitrogen-containing derivatives of oligomers of tetrafluoroethylene and hexafluoropropene. 3,502,728, 3-24-70, Cl. 260-584.

Fielding, Harold Crosbie, to Imperial Chemical Industries Limited. Preparation of ketenes. 3,517,065, 6-23-70, Cl. 260-585.5

Fielding, Harold Crosbie, to Imperial Chemical Industries Limited. Sulphonic acid derivatives of oligomers of perfluoolefins. 3,519,682, 7-7-70, Cl. 260-513.

Fielding, Sol B. Sponge sheath for douche tip. 3,512,526, 5-19-70, Cl. 128-239.

Fields, Alan S.: *See—*
Anderson, William W.; and Fields, Alan S.,3,532,971.

Fields, Albert F., to Dynamics Corporation of America. Electrical switch housing. 3,511,956, 5-12-70, Cl. 200-172.

Fields, Charles C. Ventilating seat pad for motorcycles. 3,514,156, 5-26-70, Cl. 297-453.

Fields, Charles M., to Continental Can Company, Inc. Method of forming container. 3,537,225, 11-3-70, Cl. 53-14.

Fields, David P., to Du Pont de Nemours, E. I., and Company. SiO_2-ZnO treated TiO_2 pigments for paper laminates. 3,503,772, 3-31-70, Cl. 106-300.

Fields, Donald L., to Eastman Kodak Company. Synthesis of a hydroxy group-containing polycyclic aromatic fused ring compound. 3,517,073, 6-23-70, Cl. 260-621.

Fields, Donald L.; and Miller, Jerry B., to Eastman Kodak Company. Certain salts of [1-azonia-2-(1,3-dioxolan-2-yl) benzyl]diesters and derivatives thereof. 3,489,759, 1-13-70, Cl. 260-295.

Fields , Ellis K., to Standard Oil Company (Indiana). Alpha-hydroxynitrile production. 3,503,997, 3-31-70, Cl. 260-343.2

Fields, Ellis K., to Standard Oil Company (Indiana). Benzotrithiolanes and their preparation. 3,491,119, 1-20-70, Cl. 260-327.

Fields, Ellis K., to Standard Oil Company (Indiana). Preparation of alpha-aminonitriles. 3,503,995, 3-31-70, Cl. 260-343.2

Fields, Ellis K., to Standard Oil Company (Indiana). Substitution of benzo- and phenyl- groups on benzene and nuclear substituted benzene, thiophene, furan, quinoli, pyridine and lower alkyl nuclear substituted pyridines by pyrolysis thereof with phthalic anhydride. 3,514,458, 5-26-70, Cl. 260-283.

Fields, Ellis K., to Standard Oil Company (Indiana). Process for producing sulfur containing aromatic carboxylic acids. 3,514,480, 5-26-70, Cl. 260-516.

Fields, Ellis K.: *See—*
Puskas, Imre; and Fields, Ellis K.,3,492,361.

Fields, Gary C.: *See—*
Andrews, Raymond J.; Fields, Gary C.; and Thompson, Harold K.,3,531,597.

Fields, Gary C., to American Telephone and Telegraph Company. Supervisory release signal pulse detector. 3,542,969, 11-24-70, Cl. 179-42.

Fields, Grover G.: *See—*
Compton, Gerge Stanley; and Fields, Grover G.,3,538,233.

Fields, Joseph R. Sprayable wax adhesive and method of making same. 3,533,208, 10-13-70, Cl. 53-25.

Fields, Marshall. Toilet seat lifter. 3,504,385, 4-7-70, Cl. 4-251.

Fields, Reuben Thomas: *See—*
Dunnington, Gordon Beale; and Fields, Reuben Thomas,3,517,095.

Fields, Reuben T.; and Hartig, Martval J., to Du Pont de Nemours, E. I., and Company. Integrally molded net. 3,505,157, 4-7-70, Cl. 161-109.

Fields, Reuben T.; and Hartig, Martval J., to Du Pont de Nemours, E. I., and Company. Continuous molding of thermoplastic resin. 3,515,778, 6-2-70, Cl. 264-40.

Fields, Robert R., to Union Carbide Corporation. Alkali metal alkylaryl sulfonate compositions. 3,491,030, 1-20-70, Cl. 252-161.

Fields, Roger Q., to Schlumberger Technology Corporation. Methods and apparatus for logging underwater well bores. 3,490,280, 1-20-70, Cl. 73-152.

Fields, Stuart G.: *See—*
Logue, Vernon J.; Westfall, Maurice E.; and Fields, Stuart G.,3,529,279.

Fielek, Anthony C., Jr., to Kelsey-Hayes Company. Skid control system including control circuit for a hydraulic modulating valve. 3,511,542, 5-12-70, Cl. 303-21.

Fielek, Anthony C., Jr.; and Weber, Francis J., to Kelsey-Hayes Company. Skid control system including valve cycling and checking circuit. 3,516,715, 6-23-70, Cl. 303-21.

Fieni, Walter, to Societe Anonyme Francaise du Ferodo. Device for regulating a reduced pneumatic depression. 3,527,404, 9-8-70, Cl. 236-92.

Fierek, Horst: *See—*
Schertel, Gunther; Bilz, Wilhelm; Fierek, Horst; and Hentschel, Bernhard,3,500,703.

Fierston, Stanley A.; and Zitzow, Harold P., to United States of America, Army, mesne. Range estimator. 3,550,125, 12-22-70, Cl. 343-13.

Fiet, Owen O., to TRW Inc. Pressure gauge with diaphragm null position means. 3,529,238, 9-15-70, Cl. 324-61.

Fietzek, Albert: *See—*
Spiess, Karl; and Fietzek, Albert,3,502,201.

Fiezell, Joseph F., to Talcott, James, Inc., mesne. Cutting cylinder. 3,521,514, 7-21-70, Cl. 83-347.

Fife Manufacturing Company: *See—*
Brown, Jerald L., 3,495,089.

Fife, Robert J., to Crane Co. Mixing valve. 3,550,633, 12-29-70, Cl. 137-636.4

Fifer, Rolland L. Apparatus for activated sludge treatment of oxygen demanding wastes. 3,529,725, 9-22-70, Cl. 210-220.

Fifield, Thomas B., to Diving Equipment & Supply Co., Inc. Diving hat neck seal and suit attachment. 3,534,408, 10-20-70, Cl. 2-2.1

Fifield, Thomas B. Submerged apparatus and method of positioning the same. 3,550,387, 12-29-70, Cl. 61-69.

Figalla, Zdenek: *See—*
Horak, Josef; Paulus, Jiri; Volek, Frantisek; Figalla, Zdenek; Hanko, Josef; Hadac, Oldrich; and Opravil, Alois,3,538,526.

Figar, Stepan, to Ceskoslovenska akademie ved. Adjustable electrode arrangement for capacitance plethysmography. 3,545,430, 12-8-70, Cl. 128-2.05

Figlik, Kenneth G.: *See—*
Wang, James Y. N.; and Figlik, Kenneth G.,3,547,685.

Figliuzzi, Vincent D. Tape. 3,537,578, 11-3-70, Cl. 206-59.

Figov, Murray; and Hotter, Roger, to GAF (Great Britain) Limited. Reflex copying method. 3,510,336, 5-5-70, Cl. 117-1.7

Figueroa, Carlos G., to Industrial Nucleonics Corporation. Fatigue determination by radioactive gas. 3,499,319, 3-10-70, Cl. 73-88.

Figueroa, John W.: *See—*
Banan, Frederick B.; Figueroa, John W.; McGee, Russell C.; Porcelli, Ernest J.; and Rakoczi, Laszlo L.,3,514,772.

Figura, William L. Motorized golf cart. 3,513,925, 5-26-70, Cl. 180-25.

Fike, Elmer A., to Security Chemicals, Inc. Oxadiazine-4-thiones and vulcanizable rubber compositions containing same. 3,510,460, 5-5-70, Cl. 260-79.5

Fike, Mary L. Educational game board. 3,545,101, 12-8-70, Cl. 35-31.

Fike Metal Products Corporation: *See—*
McAlister, Charles D.; and Arrington, James R., 3,513,311.

Fike, Roy A.; and Fotoples, William C., to Owens-Illinois, Inc. Single stage forming of glass container in neck ring arm mold. 3,528,793, 9-15-70, Cl. 65-77.

Fikse, Tyman H., to Page & Page, a division of Dura Corporation. Trailer including detachable gooseneck. 3,517,945, 6-30-70, Cl. 280-425.

Fikse, Tyman H., to Page & Page. Trailer with rear wheel steering system. 3,542,390, 11-24-70, Cl. 280-81.

Filament Extrudes Pty. Limited: *See—*
Macdonald, Michael J., 3,488,934.

Filas, Joseph J., 10% to Lee, Raymond, Organization, Inc., The. Soap holder. 3,542,411, 11-24-70, Cl. 294-64.

Filatov, Wladimir N. Balance weight for instrument pointer arm. 3,508,521, 4-28-70, Cl. 116-136.5

File, Robert H. Eating utensil with illuminated head portion. 3,510,643, 5-5-70, Cl. 240-6.46

Files, Thomas I., to Blaw Knox Company. Truck hitch arm articulating roller. 3,542,397, 11-24-70, Cl. 280-460.

Filfast Corporation: *See—*
Bauer, William H., 3,535,273.

Filia, George J., to Sargent & Company. Locator and holder in a crimping tool for an electrical connector. 3,487,524, 1-6-70, Cl. 29-203.

Filia, George J., to Sargent & Company. Locator in a crimping tool for an electrical connector. 3,504,417, 4-7-70, Cl. 29-203.

Filia, George J., to Sargent & Company. Locator and holder in a crimping tool for an electrical connector. 3,523,351, 8-11-70, Cl. 29-203.

Filimonov, Alexei Nikolaevich; Kegeles, Mark Borisovich; and Malkin, Pavel Aronovich. Converter substation for direct current power transmission. 3,530,362, 9-22-70, Cl. 321-11.

Filing Systems, Inc.: *See—*
Potter, Frank, 3,540,786.

Filipak, Edmund H., to Westinghouse Electric Corporation. Cooking apparatus. 3,500,816, 3-17-70, Cl. 126-211.

Filipak, Edmund H., to Westinghouse Electric Corporation. Bi-level cooking platform. 3,525,852, 8-25-70, Cl. 219-444.

Filipowsky, Richard F. J., to International Business Machines Corporation. Digital communication system employing multiplex transmission of maximal length binary sequences. 3,518,547, 6-30-70, Cl. 325-42.

Filippazzi, Franco, to Olivetti-General Electric S.p.A. Permanent electro-optical memory system using light conducting rods or fibers. 3,526,880, 9-1-70, Cl. 340-173.

Filippi, Ernest Anthony, to Special Devices, Incorporated. Practice grenade. 3,492,945, 2-3-70, Cl. 102-64.

Filippi, Jean-Paul; and Zucca, Marc Edouard, 1/3 to Chantiers Navals de La Ciotat. Process for the installation of a time-lag device with pneumatic logical relays and a device for its operation. 3,489,180, 1-13-70, Cl. 135-625.66

Filippini, Robert F.: *See—*
Corcoran, Kenneth E.; and Filippini, Robert F.,3,522,340.

Filippino, Carmela M.: *See—*
Mellin, John J., Jr.; Harding, Jonathan; Schrandt, William T.; and Filippino, Carmela M.,3,497,889.

Filius, Ronald H., to Anaconda Wire and Cable Company. Polyamide-imide enamel containing (1) dicyandiamide or (2) dicyandiamide and triphenyl phosphite. 3,513,134, 5-19-70, Cl. 260-78.

Filius, Ronald H.: *See—*
Olson, Emil H.; Arndt, Rudolph P.; and Filius, Ronald H.,3,493,413.
Olson, Emil H.; Arndt, Rudolph P.; and Filius, Ronald H.,3,528,852.

Fillar, John A.: *See—*
Schlicke, Heinz M.; Fillar, John A.; and Henkel, Dennis P.,3,541,473.

Filler Machine Company, Inc., The: *See—*
Lange, Ludwig H., 3,533,216.

Filler, William S.; and Petes, Joseph, to United States of America, Navy. Directional explosive echo ranging device. 3,521,725, 7-28-70, Cl. 181-0.5

Fillet, Pierre; and Bonnel, Bernard, to Progil de Miromesnil. Gelling reagents for soluble silicates. 3,493,406, 2-3-70, Cl. 106-74.

Filliol, Jacques, deceased0 (by Filliol, Joanne Marie; executrix). Agricultural heater system and heaters therefor. 3,540,822, 11-17-70, Cl. 431-207.

Filliol, Joanne Marie: *See—*
Filliol, Jacques,3,540,822.

Fillmore, Charles Luther: *See—*
Long, Stanley Arnold; and Fillmore, Charles Luther,3,505,574.

Filloux, Jean H., to United States of America, Navy, mesne. Magnetometer utilizing a mirror and a magnet, the latter being movable relative to said mirror to a connect and disconnect position. 3,508,142, 4-21-70, Cl. 324-48.

Filloux, Jean H., to Gulf General Atomic Incorporated, mesne. Optical lever, and detecting system and plate assembly for use therewith. 3,535,538, 10-20-70, Cl. 250-230.

Filloux, Jean H., to Gulf General Atomic Incorporated. Monitoring apparatus. 3,538,772, 11-10-70, Cl. 73-398.

Filmotype Corporation: *See—*
Friedman, Allan; and Spano, James V., 3,529,296.

Filmways, Inc.: *See—*
Friedman, Leonard, 3,523,855.

Filosa, Jean Antoine, to British Petroleum Company Limited, The. Cultivation and separation of hydrocarbon consuming microorganisms. 3,520,777, 7-14-70, Cl. 195-28.

Filosa, Jean Antoine, to British Petroleum Company Limited, The. Growth and separation of hydrocarbon consuming microorganisms. 3,522,147, 7-28-70, Cl. 195-28.

Filper Corporation: *See—*
Aguilar, Henry; Camezon, Raymond E.; and McClelland, Etheridge R., 3,547,249.
Mc Clelland, Etheridge R.; and Spence, Henry L., 3,540,507.
McClelland, Etheridge R.; and Spence, Henry L., 3,503,485.
Perrelli, Joseph, 3,520,341.

Filskov, Alfred, Jr.: *See—*
Cooper, Oscar J.; Filskov, Alfred, Jr.; and King, John A.,3,535,530.

Filson, John Richard. Wire-end connector structure. 3,514,740, 5-26-70, Cl. 339-47.

Filter, Harold E.: *See—*
Stevens, Don L.; and Filter, Harold E.,3,511,725.

Filter, Katherine M. Multi-purpose transportation apparatus. 3,524,659, 8-18-70, Cl. 280-414.

Filterite Corporation: *See—*
Masaschi, Joseph B.; Miller, Charles A., Jr.; and Miller, Robert W., Jr., 3,513,980.

Filters, Inc.: *See—*
Gammon, Howard M., 3,506,127.
Taylor, Lucian W., 3,519,560.

Filton Limited: *See—*
Walker, Gordon Richard; and Murray, William, 3,494,292.
Walker, Gordon Richard, 3,501,174.

Finacalor Aktiengesellschaft: *See—*
de Galocsy, Zsigmond; and Prunet, Jean, 3,549,295.

Finagin, Petr Mikhailovich: *See—*
Tselikov, Alexandr Ivanovich; Vernik, Alexandr Borisovich; Yampolsky, Vasily Makarovich; Zayats, Iosif Lvovich; Tartakovsky, Igor Konstantinovich; Finagin, Petr Mikhailovich; Kovtushenko, Anatoly Alexandrovich; Zhukevich-Stosha, Evgeny Alexandrovich; Verderevsky, Vadim Anatolievich; Seifulin, Gazis Kutuzovich; Grinshpun, Arkady Iosifovich; Balakin, Valery Georgievich; Sominsky, Zelman Abelevich; Bisk, Matvei Borisovich; Petrov, Jury Vasilievich; Volshonok, Zinovy Semenovich; Volchkov, Evgeny Andreevich; Anisiforov, Vladimir Pavlovich; and Shpigelman, Rudolf Markovich,3,511,070.

Finan, James E. Body motion sensitive electrical switch with lost motion means. 3,493,703, 2-3-70, Cl. 200-153.

Finan, Peggy D. Surface textured glass lamination and process of producing the same. 3,506,534, 4-14-70, Cl. 161-159.

Finch, Harry D., to Shell Oil Company. Chemical waterflooding techniques using complex surfactants. 3,515,214, 6-2-70, Cl. 166-272.

Finch, Horace T.; and Emmons, Donald L., to Birtcher Corporation, The. Medical monitoring system. 3,513,833, 5-26-70, Cl. 128-2.06

Finch, Horace T.; and Emmons, Donald L., to Birtcher Corporation, The. Patient identification marker apparatus. 3,517,662, 6-30-70, Cl. 128-208.

Finch, Neil Lamar; and Holleman, Balus Jaffar, Jr., to Du Pont de Nemours, E. I., and Company. Flock coating composition. 3,498,816, 3-3-70, Cl. 117-17.

Finch, Neil Lamar; Lemley, James Dean; and Proffitt, Thomas Jefferson, Jr., to Du Pont de Nemours, E. I., and Company. High temperature resistant textile fiber finish composition. 3,544,462, 12-1-70, Cl. 252-8.6

Finch, Neville, to Ciba Corporation. Cyclopentyl-alkanoic acids. 3,532,721, 10-6-70, Cl. 260-345.8

Finch, Neville, to Ciba Corporation. Cyclopentyl-alkanoic acids. 3,538,120, 11-3-70, Cl. 260-345.8

Finch, Neville; and Taylor, William Irving, to Ciba Corporation. 1,3,4,10-Decanetetracarboxylic acid and esters thereof. 3,530,166, 9-22-70, Cl. 260-485.

Finch, Peter M.; and Wall, Henry R., to Pressed Steel Fisher Limited. Vehicle seats. 3,498,670, 3-3-70, Cl. 297-396.

Finch, Richard D.; and Mathews, Carl G., to Kaiser Aluminum & Chemical Corporation. Flex raise machine. 3,499,205, 3-10-70, Cl. 29-203.

Finch, Stanley Russell. Ignition timing system for an internal combustion engine. 3,521,611, 7-28-70, Cl. 123-146.5

Finch, Theron R.: *See—*
Sykes, Donald J.; Kroll, Harry; and Finch, Theron R.,3,549,370.

Finch, William A.: *See—*
Bovio, Robert J.; and Finch, William A.,3,545,722.

Finck, Frederick P., Jr., to Ruleta Company, Inc., The. Removable section of split housing bares both ends of plug cock spindle. 3,540,468, 11-17-70, Cl. 137-383.

Fincke, John K.: *See—*
De Brunner, Ralph E.; and Fincke, John K.,3,511,790.

Fincke, John K.; and DeBrunner, Ralph E., to Monsanto Research Corporation. Nitrogenous polymers and process of laminating therewith. 3,511,733, 5-12-70, Cl. 156-243.

Finckh, Hermann, Metalltuch- und Maschinenfabrik: *See—*
Rieker, Adolf; and Boklen, Rudolf, 3,521,660.

Findeisen, Gerhard; and Brotz, Walter, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process for molding articles from metal powders 3,539,472, 11-10-70, Cl. 252-51.5

Findeisen, Gerhard: *See—*
Dautzenberg, Norbert; Naeser, Gerhard; and Findeisen, Gerhard,3,497,347.

Findl, Eugene; Ahmadi, Mansoor A.; and Lui, Kenneth, to Xerox Corporation, mesne. Magnesium electrodeposition. 3,520,780, 7-14-70, Cl. 204-3.

Findl, Eugene; Marlow, Douglas G.; and Mason, William B., to Xerox Corporation. Aliquotting device. 3,508,879, 4-28-70, Cl. 23-253.

Findl, Eugene; Marlow, Douglas G.; Yahiro, Arthur T.; and Reid, George C., to Xerox Corporation. Automated chemical analyzer. 3,526,480, 9-1-70, Cl. 23-253.

Findl, Eugene: *See—*
United States of America,National Aeronautics and Space Administration, Administrator, 3,507,704.

Findlay, Hugh T., to International Business Machines Corporation. Flexible self-supporting cut resistant writing element. 3,522,344, 7-28-70, Cl. 264-255.

Findlay, Hugh T.; and Horne, William H., to International Business Machines Corporation. Moisture sensitive fillers in polymer matrix writing elements. 3,510,438, 5-5-70, Cl. 260-2.5

Findlay, Irvine Limited: *See—*
Irvine, John A., 3,524,043.

Findlay, Jack B.: *See—*
Pool, Stuart D.; Svereika, Edward; and Findlay, Jack B.,3,537,246.

Findlay, John S. Diaphragm actuated pulse pump. 3,496,874, 2-24-70, Cl. 103-38.

Findley, Lauren K., to Electronic Communications, Inc. Liquid cooled amplifier. 3,536,952, 10-27-70, Cl. 315-39.

Fine, Clarence Robert. Audio visual process and apparatus. 3,536,828, 10-27-70, Cl. 178-6.6

Fine, Michael M.: *See—*
Dean, James M., 3,491,596.
Dean, James M., 3,539,815.
Dean, James M., 3,540,283.

Fine, Morris M.; and Reuss, John L., to United States of America, Interior. Method for smelting low-sulfur copper ores. 3,533,779, 10-13-70, Cl. 75-74.

Fineblum, Solomon S., to Ramco Incorporated. Control system for refrigerating apparatus. 3,498,074, 3-3-70, Cl. 62-197.

Finefrock, Quay G.: *See—*
Baur, Gerd R.; Stroh, Ernest F.; and Finefrock, Quay G.,3,541,075.

Finelli, Anthony F., to Goodyear Tire & Rubber Company, The. Container for liquid hydrocarbons having a polyurethane derived from an aliphatic polycarbonate the hydrocarbon barrier. 3,526,572, 9-1-70, Cl. 161-183.

Finelli, Patrick L.: *See—*
Conner, James M.; and Finelli, Patrick L.,3,530,778.

Finelli, Patrick L., to Polaroid Corporation. Photographic apparatus for distributing processing fluid from a pod. 3,498,196, 3-3-70, Cl. 95-13.

Finelli, Patrick L., to Polaroid Corporation. Processing apparatus having specially configured pressure applying members. 3,537,371, 11-3-70, Cl. 95-13.

Finelli, Patrick L.; and Lyon, Walter R., to Polaroid Corporation. Photographic camera. 3,511,146, 5-12-70, Cl. 95-11.

Fineman, Abraham. Highway post trimmer. 3,535,861, 10-21-70, Cl. 56-25.4

Finerty, Fred P. Board game apparatus. 3,536,328, 10-27-70, Cl. 273-134.

Finestone, Arnold B.; Niechwiadowicz, Michal; and Crall, Hugh C. Expandable alkenyl aromatic polymers containing incorporated expandable alkenyl aromatic polymers and polysiloxane. 3,505,253, 4-7-70, Cl. 260-2.5

Finfer, Edward Z.; and Willett, Howard P., to Chemical Construction Corporation. Removal of sulfur oxides from waste gases. 3,533,748, 10-13-70, Cl. 23-226.

Finfrock, Carl Douglas, to Law Paper Company. Display stand. 3,532,310, 10-6-70, Cl. 248-46.

Fingas, Ernst, to Chemische Fabrik Marienfelde G.m.b.H. Process for the preparation of magnesium and/or calcium salts of fumaric acid, if desired in the form of double salts with phosphoric acid and/or with water-soluble aliphatic carboxylic acid. 3,534,095, 10-13-70, Cl. 260-535.

Finger, John F., to Sioux Steam Cleaner Corporation. Steam cleaner construction. 3,533,380, 10-13-70, Cl. 122-250.

Finger Keys, Inc.: *See—*
Hindman, Daniel T.; and Morris, Robert V., 3,516,059.

Finger, Walter, to Matisa Materiel Industriel S.A. Method and equipment for regulating ballast of a railway track. 3,491,467, 1-27-70, Cl. 37-104.

Fingerett, Joseph A.; McGann, Laurence; and Turnblade, Richard C., to United States of America, Navy. Control system for an inertial platform. 3,499,332, 3-10-70, Cl. 74-5.6

Fink, Earl L., to Philco-Ford Corporation. Tuning indicator. 3,508,520, 4-28-70, Cl. 116-124.4

Fink, Edwin Harold; and Hogue, Robert Darryl, to American Can Company. Tube cutting apparatus. 3,534,645, 10-20-70, Cl. 82-82.

Fink, Frank J., to Imperial Manufacturing & Engineering Co. Chip sweeper for machine systems having indexing turrets. 3,493,099, 2-3-70, Cl. 198-212.

Fink, Frank J., to Imperial Manufacturing & Engineering Co. Indexing table. 3,508,311, 4-28-70, Cl. 29-38.

Fink, Frank J., to Imperial Manufacturing & Engineering Co. Power head for cutting tools. 3,534,421, 10-20-70, Cl. 10-105.

Fink, Herbert: *See—*
Schroder, Gunter; and Fink, Herbert,3,502,719.
Schroder, Gunter; and Fink, Herbert,3,515,750.
Schroder, Gunter; and Fink, Herbert,3,539,572.

Fink, Herbert; and Schroder, Gunter, to Rohm & Haas G.m.b.H.Preparation of α-amino-carboxylic acids. 3,536,726, 10-27-70, Cl. 260-295.

Fink, John F., Jr. Tape applicator having non-stick surface. 3,542,628, 11-24-70, Cl. 156-527.

Fink, Lothar: *See—*
Koch, Friedrich; and Fink, Lothar,3,530,731.

Fink, Lothar; and Koch, Friedrich, to Desma-Werke Gesellschaft mit beschrankter Haftung. Apparatus for forming bottom to shoe uppers by injection molding. 3,521,327, 7-21-70, Cl. 18-17.

Fink, Martin R.: *See—*
Allan, Adrian R., Jr.; and Fink, Martin R.,3,529,406.

Fink, Robert C., to Ostrander-Seymour Co. Dimensional control system. 3,550,204, 12-29-70, Cl. 18-16.

Fink, Roger H., to Anchor Hocking Glass Corporation. Down-ware rejector system. 3,506,840, 4-14-70, Cl. 250-233.

Fink, Walter, to Monsanto Company. High-temperature resistance polymers which contain silicon and nitrogen and method of making. 3,498,949, 3-3-70, Cl. 260-46.5

Fink, Walter, to Monsanto Company. 1,3-Disilyl-1,3,2-diazasilacycloalkanes and process of preparing. 3,509,194, 4-28-70, Cl. 260-448.2

Fink, Walter, to Monsanto Company. Polymeric 1,3-bis(silyl)-1,3-diaza-2-sila- cycloalkanes and process for making. 3,509,195, 4-28-70, Cl. 260-448.2

Fink, Walter, to Monsanto Company. Process for preparing high temperature resistant 1,3-diaza-2-sila-cycloalkane derivatives. 3,532,728, 10-6-70, Cl. 260-448.2

Fink, Walter, to Monsanto Company. 1,3-Disilyl-1,3,2,4-diazadisiletidines and process. 3,535,358, 10-20-70, Cl. 260-448.2

Fink, Walter, to Monsanto Company. Process for preparing organic 1,3-di- (halogenosilyl)-1,3,2,4-diazadisiletidines and the products. 3,539,609, 11-10-70, Cl. 260-448.2

Fink, William C.; and Shaffer, John W., to Sylvania Electric Products, Inc. Photoflash lamp. 3,521,983, 7-28-70, Cl. 431-93.

Fink, William C.; and Shaffer, John W., to Sylvania Electric Products, Inc. Photoflash lamp. 3,521,984, 7-28-70, Cl. 431-93.

Fink, William M. Self-stirring cooker and server apparatus. 3,502,848, 3-24-70, Cl. 219-432.

Fink, Wolfgang, to Siemens Aktiengesellschaft. Dual impact means for print hammers in high speed printers. 3,517,611, 6-30-70, Cl. 101-93.

Finkbeiner, Herman L.: *See—*
Factor, Arnold; Finkbeiner, Herman L.; Jerussi, Robert A.; and White, Dwain M.,3,522,275.

Finkbeiner, Herman L., to General Electric Company. Process for the preparation of carboxylic acid esters. 3,549,688, 12-22-70, Cl. 260-468.

Finkbeiner, Herman L.; and Bush, John B., Jr., to General Electric Company. Preparation of esters from alkanes. 3,535,372, 10-20-70, Cl. 260-488.

Finke, Adele: *See—*
Finke, Arno,3,537,359.

Finke, Arno, deceased (by Finke, Adele; heir), to Windmoller & Holscher. Machine for manufacturing bags from preprinted webs. 3,537,359, 11-3-70, Cl. 93-8.

Finke, Arno, to Windmoller & Holscher. Delivery device for use with bag-making machines. 3,502,006, 3-24-70, Cl. 93-93.

Finkel, Gilbert: *See—*
Klug, Sigmund L.; Finkel, Gilbert; and Sherain, Monroe,3,514,294.

Finkel, Harry. Game racket with resiliently supported net. 3,507,494, 4-21-70, Cl. 273-67.

Finkel, Richard, 1/2 to Sendor, Bernard T., and Sendor, Mortimer S. Educational display case. 3,507,056, 4-21-70, Cl. 35-60.

Finkel, Seymour I.; Janes, Warren M.; and Nilsen, Ragnar N., to Vitro Corporation of America. Statistical decision systems. 3,493,874, 2-3-70, Cl. 328-151.

Finkel, Seymour I.; Janes, Warren M.; and Nilsen, Ragnar N., to Vitro Corporation of America. Digital conversion systems. 3,512,151, 5-12-70, Cl. 340-347.

Finkelstein, Arthur, to Monarch International Ltd. Adjustable mounting for inclined design wheels. 3,541,811, 11-24-70, Cl. 66-50.

Finkelstein, Leo; Magram, Sidney J.; Cohen, Leonard; and Gregory, William T., to United States of America, Navy. Hydrocarbon gelling process using aluminum soap thickeners with surface active agents. 3,539,310, 11-10-70, Cl. 44-7.

Finkelstein, Manuel: *See—*
Ross, Sidney D.; Petersen, Raymond C.; and Finkelstein, Manuel,3,539,614.

Finkelstein, Paul; Laden, Karl; and Solan, James L., to Gillette Company, The. Disposable thermometer. 3,521,489, 7-21-70, Cl. 73-358.

Finkelston, Robert J.: *See—*
Craig, Walton H.; Finkelston, Robert J.; Humphrey, Dean E.; Lavanchy, Andre C.; and Shapiro, Leonard,3,494,542.

Finkelstone, Douglas A.: *See—*
Hooper, George H., 3,498,264.

Finkin, Eugene F. Multiple disc power transmission. 3,494,452, 2-10-70, Cl. 192-70.14

Finkl, A., & Sons Co.: *See—*
Finkl, Alfred F.; and Wilson, William, Jr., 3,519,499.
Finkl, Charles W.; and Philbrick, Herbert S., Jr., 3,501,289.
Finkl, Charles W.; and Philbrick, Herbert S., Jr., 3,501,290.

Finkl, Alfred F.; and Wilson, William, Jr., to Finkl, A., & Sons Co. Heat treated forging die having a low alloy content. 3,519,499, 7-7-70, Cl. 148-36.

Finkl, Charles W.; and Philbrick, Herbert S., Jr., to Finkl, A., & Sons Co. Method and apparatus for adding heat to molten metal under vacuum. 3,501,289, 3-17-70, Cl. 75-12.

Finkl, Charles W.; and Philbrick, Herbert S., Jr., to Finkl, A., & Sons Co. Method of treating molten metal with arc heat and vacuum. 3,501,290, 3-17-70, Cl. 75-12.

Finkle, Jack. X-ray image transducer tube having crenelated fluorescent layer ahead of solid-state image intensifier. 3,543,034, 11-24-70, Cl. 250-213.

Finlay, Madison H. Variable valve timing control for internal combustion engines. 3,496,918, 2-24-70, Cl. 123-90.

Finlay, Walter L.; and Bomberger, Howard B., Jr., to Crucible Inc. Master alloy. 3,508,910, 4-28-70, Cl. 75-122.

Finlayson, Frank E.: *See—*
Davidson, William E.; and Finlayson, Frank E.,3,496,661.

Finley, Carl E.: *See—*
Suchowolec, Walter T.; and Finley, Carl E.,3,521,669.

Finley, Dallas L. Holding device for restraining small quadruped animals to facilitate trimming grooming and operating. 3,524,434, 8-18-70, Cl. 119-103.

Finley, Lloyd D.; and Lohbauer, Kenneth R., to Caterpillar Tractor Company. Detent for valves with automatic release means. 3,528,638, 9-15-70, Cl. 251-73.

Finley, Roy D.; Flanigan, James D.; and Bowen, Eldred W., to Pet Incorporated. Aseptic filling apparatus. 3,511,022, 5-12-70, Cl. 53-112.

Finley, Roy D.; Flanigan, James D.; and Bowen, Eldred W., to Pet Incorporated. Container for aseptic packaging of fluid food products. 3,542,567, 11-24-70, Cl. 99-171.

Finley, Sidney. Picture mounting apparatus. 3,517,452, 6-30-70, Cl. 40-159.

Finn, Alexander V.: *See—*
Puetzer, Bruno; Mackles, Leonard; and Finn, Alexander V.,3,511,791.

Finn, Bernard J.: *See—*
Yew, Ming-Chih; and Finn, Bernard J.,3,524,657.

Finn Industries Division, The: *See—*
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Finn Industries, Inc., The: *See—*
Barnes, Bayard I., 3,506,184.
Barnes, Bayard I., 3,523,398.

Finn Industries, The: *See—*
Henry, James W., 3,494,536.
Waldbauer, Wilhelm; Osterle, Richard; and Hinderer, Heinz, 3,521,536.

Finn, John B.; and Hudecek, Carl J., to Owens-Illinois, Inc. Method for oxidizing alloys. 3,519,496, 7-7-70, Cl. 148-6.35

Finn, Joseph F., Jr., to General Signal Corporation. Hydraulic supply system with two pumping units. 3,540,218, 11-17-70, Cl. 60-52.

Finn, William M.; and McCarthy, Francis L., to Staley, A. E., Manufacturing Company. Polymeric composition. 3,532,654, 10-6-70, Cl. 260-28.5

Finn, William M.; and McCarty, Francis L., to Staley, A. E., Manufacturing Company. Method of preparing polymers containing amino alkyl groups. 3,541,037, 11-17-70, Cl. 260-29.6

Finnegan, Francis, to Texas Instruments, Incorporated. Battery charger and charge terminator. 3,531,707, 9-29-70, Cl. 320-43.

Finnegan, Francis: *See—*
White, Abraham P.; and Finnegan, Francis,3,519,907.

Finnegan, Walter D., to Kaiser Aluminum & Chemical Corporation. Steel-to-aluminum transition joint. 3,495,319, 2-17-70, Cl. 29-470.1

Finnerty, Frank A., Jr.; and Johnson, Arnold C. Simplified accurate method of detecting bacteriuria. 3,547,780, 12-15-70, Cl. 195-103.5

Finney, Rex G.; and Sidebottom, Albert J., to United States of America, Navy. Apparatus for coupling and decoupling a load. 3,497,168, 2-24-70, Cl. 244-149.

Finney, Rex G.; and Sidebottom, Albert J., to United States of America, Navy. Modular drogue parachute. 3,521,841, 7-28-70, Cl. 244-145.

Finney, William J. Electrolytic methods and apparatus for storage of information. 3,540,014, 11-17-70, Cl. 340-173.

Finnie, Lies N.; and Kornblau, Marvin J., to Singer-General Precision, Inc. Method of changing the thermochromic transition temperature of silver mercuric iodide and copper mercuric iodide. 3,516,945, 6-23-70, Cl. 252-408.

Finnigan, Daniel B.: *See—*
Martin, Alonza F.; and Finnigan, Daniel B.,3,500,587.

Finnila, John S.; and Justus, Edgar J. Web formation between a pair of foraminous belts. 3,540,981, 11-17-70, Cl. 162-301.

Finnstrand, Harald, to Automation Industries, Inc., mesne. Utensil holder for a cooking unit. 3,515,116, 6-2-70, Cl. 126-24.

Fino, Michael J., to USM Corporation. Shoe lasting machine trimming device. 3,487,487, 1-6-70, Cl. 12-8.8

Fins, Albert: *See—*
Metropoulos, James, 3,512,689.

Fins, Irving: *See—*
Metropoulos, James, 3,512,689.

Fins, Irving. Sink strainer body assembly. 3,509,587, 5-5-70, Cl. 4-288.

Finster, Manfred, to Pfaff, G. M., AG. Sewing machine with loop support. 3,533,368, 10-13-70, Cl. 112-227.

Fiocco, Robert J., to Esso Research and Engineering Company. Tank Cleaning operations. 3,536,529, 10-27-70, Cl. 134-40.

Fior, Aldo; and Navone, Mauro, to Montecatini Edison S.p.A. Process for preparing non-woven fabrics. 3,528,147, 9-15-70, Cl. 28-72.2

Fiore, John M., to Bio-Analytical Laboratories, Inc. Speculum instrument. 3,532,088, 10-6-70, Cl. 128-18.

Fiore, Joseph N.; Gallo, James A.; Quinn, Robert G.; and Quinn, Jerome B., to Production Systems, Incorporated. Method and apparatus for orienting articles. 3,489,276, 1-13-70, Cl. 209-73.

Fiore, Joseph V.: *See—*
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Fischer, Albert K.; Maroni, Victor A.; Tevebaugh, Arthur D.; and Cairns, Elton J., to United States of America, Atomic Energy Commission. Secondary power-producing cell. 3,531,324, 9-29-70, Cl. 136-20.

Fischer, Alfred O., to American Machine & Foundry Company. Short cycle adsorption process with captive propane regeneration system. 3,514,396, 5-26-70, Cl. 208-340.

Fischer, Alois, to Zahnradfabrik Friedrichshafen Aktiengesellschaft. Cutter construction. 3,520,044, 7-14-70, Cl. 29-105.

Fischer, Artur Tumlingen. Construction kit including toothed rack element. 3,513,587, 5-26-70, Cl. 46-16.

Fischer, Artur. Camera with built-in flash unit. 3,491,665, 1-27-70, Cl. 95-11.

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Fischer, Artur. Toy assembly kit. 3,513,588, 5-26-70, Cl. 46-25.

Fischer, Artur. Building toy with rigid carriers provided with cooperating undercut male and female coupling portions. 3,513,589, 5-26-70, Cl. 46-25.

Fischer, Artur. Blocks connectable by lateral sliding, including means for reducing sliding contact. 3,513,590, 5-26-70, Cl. 46-25.

Fischer, Artur. Programming device. 3,514,555, 5-26-70, Cl. 200-17.

Fischer, Artur. Expansion anchor construction. 3,524,379, 8-18-70, Cl. 85-74.

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Fischer, Charles Frederick, to Colgate-Palmolive Company. Apparatus for continuous mixing of solid and liquid material and extrusion of the mixture. 3,497,912, 3-3-70, Cl. 18-2.

Fischer, Charles Frederick, to Colgate-Palmolive Company. Soap and detergent plodder. 3,541,652, 11-24-70, Cl. 25-8.

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Fischer, Erhardt; and Kent, Eric G., to Polymer Corporation Limited. Polymeric compositions. 3,502,747, 3-24-70, Cl. 260-894.

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Fischer, Harry C. Controlled volume systems for pneumatic discharge of powdered and granular materials and the like. 3,490,654, 1-20-70, Cl. 222-193.

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Fischer, John Peter, to Packaging Corporation of America. Container construction and blank therefor. 3,530,635, 9-29-70, Cl. 53-29.

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Fischer, Kurt; and Hoschler, Hans, to Siemens Aktiengesellschaft. Time multiplex communication exchange with storage device of increased capacity. 3,499,120, 3-3-70, Cl. 179-18.

Fischer, Lee J., deceased0 (by Fischer, Helen M.; executrix), to General Electric Company. Fan arrangement for high bypass ratio turbofan engine. 3,528,246, 9-15-70, Cl. 60-226.

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Fischer, Ludwig, to Benrus Corporation. Watertight watch case with oval crystal. 3,545,197, 12-8-70, Cl. 58-90.

Fischer, Nathan A.; and Hardwick, George W, to Hormel, Geo A., & Company. Townsend skinner knuckle bone remover. 3,545,036, 12-8-70, Cl. 17-1.

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Fischer, Raymond C., to International Harvester Company. Automatic control means for implement. 3,517,747, 6-30-70, Cl. 172-7.

Fischer, Raymond C., to International Harvester Company. Two way plow trip. 3,517,748, 6-30-70, Cl. 172-224.

Fischer, Raymond C., to International Harvester Company. Bale wagon. 3,528,564, 9-15-70, Cl. 214-6.

Fischer, Raymond C.; Johnson, Otto E.; and Tiedt, Gerald J., to International Harvester Company. Automatic guidance apparatus for vehicles. 3,537,531, 11-3-70, Cl. 172-26.

Fischer, Reinhard; Frank, Ludolf; and Ebeling, Gunter, to Stolberger Zink Aktiengesellschaft Fuer Bergbau und Huettenbetrieb. Method and apparatus for segregating the components of secondary cells. 3,493,183, 2-3-70, Cl. 241-24.

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Fischer, Robert F.; and Kaenel, Reginald A., to Bell Telephone Laboratories, Incorporated. Shift register pulse generator including feedback loop. 3,500,348, 3-10-70, Cl. 340-174.

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Fischer, Thomas R.: *See—*
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Fischer, Walter; and Rieder, Albert, to Semperit Osterreichisch-Amerikanische Gummiwerke Aktiengesellschaft. Device for the production of blanks of equal volume and their distribution. 3,497,120, 2-24-70, Cl. 225-96.

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Fischer, William H., to Westinghouse Electric Corporation. Gas-flow circuit interrupters having improved orifice and contact constructions. 3,551,624, 12-29-70, Cl. 200-148.

Fischer, William H., to Westinghouse Electric Corporation. Circuit breakers. 3,551,625, 12-29-70, Cl. 200-148.

Fischer, William H.; and Colclaser, Robert G., Jr., to Westinghouse Electric Corporation. Dual-pressure compressed-gas circuit breaker with a downstream blast valve cooperative with interrupter housing in defining high-pressure region and with spaced breaker terminal disposed with said high pressure region. 3,546,408, 12-8-70, Cl. 200-148.

Fischer, William H.; and Frink, Russell E., to Westinghouse Electric Corporation. Fluid-blast circuit interrupter with piston assembly and electromagnetic driving means. 3,549,842, 12-22-70, Cl. 200-148.

Fischer, William, to Chevron Research Company. Offshore apparatus including tensioning means for a marine conductor. 3,532,162, 10-6-70, Cl. 166-0.5

Fischer, Winfried, to Hengstler, J., K.G. Zahlerfabrik. Counter. 3,506,190, 4-14-70, Cl. 235-82.

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Fish, Aaron M., to Unican Security Systems, Ltd. Combination lock controlled electrical instrumentality. 3,529,454, 9-22-70, Cl. 70-278.

Fish, Daniel Cecil Edward, to National Research Development Corporation. Storage of liquids. 3,516,568, 6-23-70, Cl. 220-18.

Fish, Kenneth Elton, to Bevis Industries, Inc. Tentering clip for gripping material of varying thicknesses. 3,514,823, 6-2-70, Cl. 26-62.

Fish, Leonard I.; Stanner, Raymond G.; and Kerwin, Richard G. Magnetic tape deck with selectively movable transducing head. 3,548,114, 12-15-70, Cl. 179-100.2

Fish, Mary Mikel Stockwood. Article package. 3,502,381, 3-24-70, Cl. 312-31.

Fish, Richard H., to United States Borax & Chemical Corporation. Organotin dioxaborinane compounds. 3,497,537, 2-24-70, Cl. 260-429.7

Fish, Richard H.; and Newsom, Herbert C., to United States Borax & Chemical Corporation. Preparation of dioxaborinane compounds. 3,547,971, 12-15-70, Cl. 260-462.

Fish, Robert W.; Stack, Wallace F.; and Welch, Craig J., to United States Steel Corporation. Reeling preassembled parallel wire

strands for bridges and other structural applications. 3,545,194, 12-8r70, Cl. 57-156.
Fish, Vernon R., to Bendix Corporation, The. Vortex valve assembly. 3,519,008, 7-7-70, Cl. 137-81.5
Fish, William T., Jr.; and Johnson, Norman A., to Armstrong Cork Company. Spline joint for ceiling boards. 3,507,083, 4-21-70, Cl. 52-586.
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Fishburne, Francis B. Differential reciprocating hydraulic motor. 3,511,130, 5-12-70, Cl. 91-31.
Fishel, Kenneth R., to United States of America, Navy. Salvage pontoon. 3,523,514, 8-11-70, Cl. 114-52.
Fishel, Norman A., to Universal Oil Products Company. Polymerization process. 3,515,769, 6-2-70, Cl. 260-683.15
Fisher, Alan R., to Ford Motor Company. Counter-rotating roller drive. 3,491,607, 1-27-70, Cl. 74-216.3
Fisher, Alan R., to Ford Motor Company. Differential gear mechanism with wobbling inertia ring. 3,548,683, 12-22-70, Cl. 74-711.
Fisher, Alan R., to Ford Motor Company. Flexible piston cone clutch. 3,548,986, 12-22-70, Cl. 192-85.
Fisher, Alfred G., to American Machine & Foundry Company, mesne. Articulated vehicles. 3,510,152, 5-5-70, Cl. 280-484.
Fisher, Arthur L. Post puller. 3,525,502, 8-25-70, Cl. 254-30.
Fisher, Bernard, to United Systems Corporation, mesne. Interrogator-encoder mechanism. 3,497,138, 2-24-70, Cl. 235-61.
Fisher, Bruce T. Space travel board game apparatus. 3,533,628, 10-13-70, Cl. 273-134.
Fisher, Charles Donald; and Watt, William Russell, to American Can Company. Olefin polymerization system employing three-component catalyst containing metal halide, organo metallic halide, and substituted aromatic aldehyde. 3,496,158, 2-17-70, Cl. 260-94.9
Fisher, Charles S. Clipper blade sharpener. 3,513,602, 5-26-70, Cl. 51-241.
Fisher, Christopher L., to Armco Steel Corporation. Composite arch structure. 3,508,406, 4-28-70, Cl. 61-16.
Fisher, Daniel J., Jr., to Leesona Corporation. Method and apparatus for processing yarn. 3,522,700, 8-4-70, Cl. 57-157.
Fisher, Daniel J., Jr., to Leesona Corporation. Textile machine. 3,541,775, 11-24-70, Cl. 57-157.
Fisher, Daniel J., Jr.; and Hilbert, Richard G., to Leesona Corporation. Strand control apparatus. 3,512,690, 5-19-70, Cl. 226-11.
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Fisher, Earl H. Hydraulic mechanical electrical sensing device. 3,503,132, 3-31-70, Cl. 33-146.
Fisher, Earl H. Double acting hydraulic cylinder and control therefor. 3,538,814, 11-10-70, Cl. 91-39.
Fisher, Ervin; Russell, Ralph W.; and Golembczyk, Raymond A., to Fuller Company. Filter bag clamping apparatus. 3,550,359, 12-29-70, Cl. 55-341.
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Fisher, Gene A.; Guzman, Adolfo M.; Harris, John P.; and Hu, Paul Y., to International Business Machines Corporation. Commutator brush assembly. 3,543,068, 11-24-70, Cl. 310-244.
Fisher, Gene A.; and Van Winkle, Howard E., to International Business Machines Corporation. Motion control device. 3,490,672, 1-20-70, Cl. 226-188.
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Fisher, George A., to General Motors Corporation. Automatic positioning mechanism. 3,508,675, 4-28-70, Cl. 214-762.
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Fisher, Henry B., to Phillips Petroleum Company. Production of sour gas-sulfur wells employing a sulfur solvent. 3,531,160, 9-29-70, Cl. 299-5.
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Fisher, Jack E.: *See—*
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Fisher, James I., to Huyck Corporation. Metal fiber reinforcement. 3,490,902, 1-20-70, Cl. 75-208.
Fisher, James L.; Klein, Fred T.; Schroeder, John D.; and Vogt, Calvin O., to Century Geophysical Corporation. Light beam oscillograph. 3,512,176, 5-12-70, Cl. 346-109.
Fisher, James M. Oil guard, pouring spout and funnel. 3,537,623, 11-3-70, Cl. 222-460.
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Fisher, John T., to Carrier Corporation. Refrigeration system having generator temperature sensing means. 3,548,608, 12-22-70, Cl. 62-148.
Fisher, Julian V., to Illinois Tool Works Inc. Spring clip. 3,491,971, 1-27-70, Cl. 248-65.
Fisher, Julian V., to Illinois Tool Works Inc. Spring clip. 3,515,363, 6-2-70, Cl. 248-71.
Fisher, Julian V., to Illinois Tool Works, Inc. Door positioner. 3,521,319, 7-21-70, Cl. 16-141.
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Fisher, Marvin D., to Westinghouse Electric Corporation. Automatic ice cube maker apparatus. 3,488,977, 1-13-70, Cl. 62-345.
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Fisher, Norman Ernest; Whiteside, John; and Green, David Frederick, to Vandervell Products Limited. Method for making thin wall flexible bearing liners. 3,516,137, 6-23-70, Cl. 29-149.5
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Fisher, Richard D., to De Muth Steel Products Company. Apparatus for the construction of vertical tubular concrete structures. 3,509,606, 5-5-70, Cl. 25-124.
Fisher, Richard D., to Westinghouse Electric Corporation. Refrigerator shelf arrangement. 3,538,860, 11-10-70, Cl. 108-1.
Fisher, Robert C., to Cincinnati Milacron, Inc. Machine tool with upwardly urged slide. 3,546,820, 12-15-70, Cl. 51-103.
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Fisher, William E.; and Hider, Shibley A., to Owens-Illinois, Inc. Process of treating lignocellulosic material with organomercaptan. 3,490,993, 1-20-70, Cl. 162-76.
Fisher, William E.; and Hider, Shibley A., to Owens-Illinois, Inc. Treatment of lignocellulosic material with organomercaptan. 3,490,994, 1-20-70, Cl. 162-76.
Fisher, William E.; and Morrison, John A. H., to Aerojet-General Corporation. Maneuver control systems for cycloidal propellers. 3,545,398, 12-8-70, Cl. 114-144.
Fisher, William F., to RCA Corporation. Slide projector including two light paths and one slide magazine. 3,501,231, 3-17-70, Cl. 353-82.
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Fisher, William T.; Thompson, Robert D.; Patterson, Charles B.; and Dahl, Stanley M., to Purex Corporation, Ltd. Charge control in electrostatic printing. 3,521,557, 7-21-70, Cl. 101-114.
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Fishman, Adolph E., to Ethyl Corporation. Compositions containing soaps of monounsaturated fatty acids derived by selective hydrogenation of polyunsaturated fatty acid soaps. 3,503,896, 3-31-70, Cl. 252-367.
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Fitch, Ernest C., Jr.; Reed, Robert E.; and Comer, Alva G., to Oklahoma State University. Regenerative hydrocyclone. 3,501,014, 3-17-70, Cl. 210-512.
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Fitch, Homer L.; Guenter, Richard G.; and Schlatter, Hugo, to Hercules Incorporated. Underwater seismic exploration system and firing device and charge therefor. 3,509,959, 5-5-70, Cl. 181-0.5
Fitch, Homer L.; and Hamilton, John F., to Hercules Incorporated. Seismic charge assembly, seismic charge primer, and method and system exploration. 3,509,820, 5-5-70, Cl. 102-24.
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Fitz-William, Charles B. R., Jr.; and Sansing, James E., Jr., to Allied Chemical Corporation. Production of ammonium polyphosphate solutions and diammonium phosphate. 3,544,299, 12-1-70, Cl. 71-34.
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Fitzmaurice, Michael W.; and Minott, Peter O., to United States of America, National Aeronautics and Space Administration. Retrodirective modulator. 3,493,294, 2-3-70, Cl. 350-285.
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Fletcher, Stewart G.; and Haswell, Walter T., Jr., to Latrobe Steel Company. Abrasion resistant ferrous alloy containing chromium. 3,489,551, 1-13-70, Cl. 75-126.
Fletcher, Taylor C.; Silva, Lawrence M.; and Wilkinson, Bruce L., to Varo, Inc. Constant voltage ferroresonant transformer utilizing unequal area core structure. 3,546,571, 12-8-70, Cl. 323-60.
Fletcher, William A.: *See—*
Hoagland, Milton B.; Groener, George E.; Trible, Clayton J.; and Fletcher, William A.,3,543,554.
Fletcher, William E.: *See—*
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Fleureau, Bernard: *See—*
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Fleury, Gerard; and Fourcade, Marc C. A., to Sud-Aviation, Societe Nationale de Constructions Aeronautiques. Electric defrosting facility for rotating blade systems. 3,496,331, 2-17-70, Cl. 219-201.
Fleury, Glendon K. Electronic trap and skeet target. 3,502,333, 3-24-70, Cl. 273-101.1
Fleury, Jacques, to Societe Anonyme Automobiles Citroen. Hydraulic correctors, notably for transmission control members. 3,545,306, 12-8-70, Cl. 74-843.
Fleury, Paul A. V.; and Worlock, John M., to Bell Telephone Laboratories, Incorporated. Electric field tunable coherent optical device. 3,502,958, 3-24-70, Cl. 321-69.
Flex-O-Lators, Inc.: *See—*
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Erwin, Galen B., 3,530,761.
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Anderson, Gordon L., 3,532,382.
Flexadyne Corporation: *See—*
Robbins, Lawrence J., 3,518,844.
Flexible Plastic Straw Corporation: *See—*
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Flexico France: *See—*
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Flexicon Electronics, Inc.: *See—*
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Clements, John W., 3,539,967.
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Black, Eileen Rockwell, 3,515,141.
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Flexweight Corporation: *See—*
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Flick, Antonius A., to Douglas, Hunter, International Ltd. Device for correcting the stepwise supply of strip material. 3,511,425, 5-12-70, Cl. 226-138.
Flick, Burton J.; and Pisani, Joseph P., to Kraftco Corporation. Cottage cheese creaming mixture. 3,506,456, 4-14-70, Cl. 99-115.
Flick, Robert H.; and Ellsworth, James P., to Westinghouse Electric Corporation. Circuit interrupter. 3,510,817, 5-5-70, Cl. 337-6.
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Flicker, Howard D., to Aircraft Plating Inc. Ceramic coating composition. 3,540,896, 11-17-70, Cl. 106-49.
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Flink, Vernon J., to Braco, Inc. Cam operating mechanism for unloading box. 3,501,030, 3-17-70, Cl. 214-17.
Flinn, Richard A.; and Tarhan, Mehmet Orhan, to Bethlehem Steel Corporation. Hydrocracking of coal tar. 3,503,872, 3-31-70, Cl. 208-112.
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Flint, George Norman; and Townshend, Stanley Charles, to International Nickel Company, Inc., The. Production of nickel pellets. 3,536,477, 10-27-70, Cl. 75-0.5
Flint, Hyland C. Suspension recliner. 3,494,663, 2-10-70, Cl. 297-354.
Flint, Hyland C. Spring seat. 3,512,831, 5-19-70, Cl. 297-309.
Flint, Hyland C. Patio chair. 3,517,964, 6-30-70, Cl. 297-309.

Flint, Hyland C. Unison action recliner. 3,542,422, 11-24-70, Cl. 297-300.

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Flinth, Rune, to Allmanna Svenska Elektriska Aktiebolaget. Means for positioning the pressure-transmitting journalling elements in weighing means. 3,526,286, 9-1-70, Cl. 177-201.

Flinth, Rune, to Allmanna Svenska Elektriska Aktiebolaget. Scales having a transducer and a platform mounted for limited lateral movement. 3,526,287, 9-1-70, Cl. 177-211.

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Flippo, Arthur P.: *See—*
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Flippo, Franklin C.; and Flippo, Arthur P. Fibre cutting machine. 3,517,713, 6-30-70, Cl. 144-186.

Flipse, John E.; Donaldson, Robert M.; Stevens, John L., Jr.; Mero, John L.; Deal, Joseph D., Jr.; Birrell, Norman D.; Oresko, Nicholas E.; Spencer, Luther E.; Graham, Alfred E.; Jones, Archer L.; Hirshman, Ira L.; Todd, Frederick S.; and Himes, William A., to Newport News Shipbuilding and Dry Dock Company. Apparatus for underwater mining. 3,522,670, 8-4-70, Cl. 37-58.

Flisher, Kenneth William: *See—*
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Flitter, David; Nescio, John J.; and Mongelluzzo, Samuel P., to American Home Products Corporation. Monohydrate of sodium salt of 6-(2-ethoxy-1- naphthamido)pencillanic acid and method of preparation. 3,506,645, 4-14-70, Cl. 260-239.1

Flitter, Joseph, deceased (by Anderson, Joseph D.; executor). Stack turn-over apparatus. 3,497,082, 2-24-70, Cl. 214-1.

Flo-Container Incorporated: *See—*
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Flo-Tronics, Inc.: *See—*
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Flocchini, Andrew J., to Phillips Petroleum Company. Automatic animal feeder. 3,520,280, 7-14-70, Cl. 119-56.

Flocchini, Andrew J. Automatic elevated back-in milking barn. 3,536,045, 10-27-70, Cl. 119-27.

Flock, Henry H., to Parker-Hannifin Corporation. Piston seal. 3,540,745, 11-17-70, Cl. 277-188.

Flock, Howard G.; and Zeh, Herbert J., Jr., to Calgon Corporation. Separation of solids from liquids. 3,489,681, 1-13-70, Cl. 210-54.

Flodin, Per G. M.; and Herz, Kurt S., to Perstorp AB. Method for the continuous recovery of trioxane. 3,494,106, 2-10-70, Cl. 55-93.

Flodin, Per G. M.; and Sjogreen, Carl-Axel E., to Perstorp AB. Process for the manufacture of gaseous formaldehyde. 3,510,525, 5-5-70, Cl. 260-606.

Flodin, Per Gustaf Magnus: *See—*
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Flora, Elvis C.: *See—*
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Flora, James D., to General Electric Company. Magnetic positioning device for computer disc files and other uses. 3,495,147, 2-10-70, Cl. 318-135.

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McIntire, Hoy O.; Hunter, Harvey H.; Seale, Clifford L.; and Flora, John H.,3,488,576.

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Florance, Douglas A.: *See—*
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Floreen, Stephen: *See—*
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Floreen, Stephen; and Novak, Charles Joseph, to International Nickel Company, Inc., The. Maraging steel suitable for heavy section applications. 3,532,491, 10-6-70, Cl. 75-123.

Floren, Carl E.: *See—*
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Florence, Robert T.; and Thomas, Richard E., to Dick, A. B., Company. Film transparency for imaging by spirit duplication. 3,522,072, 7-28-70, Cl. 117-35.6

Florent, Jean Edmond Marie; Ninet, Leon; and Tissier, Robert Charles Francois, to Rhone-Poulenc S.A. Process for the manufacture of D-lactic acid and its salts. 3,494,832, 2-10-70, Cl. 195-48.

Flores, Fernando E., to Tenney Engineering, Inc. Humidifier. 3,502,309, 3-24-70, Cl. 261-130.

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Florez, Avesline Kimbrell. Sea horse pulling unit. 3,507,244, 4-21-70, Cl. 115-63.

Flori, Jean Francois, to Compagnie de Saint-Gobain. Method and apparatus for the production of flat glass with edge temperature sensing means. 3,511,627, 5-12-70, Cl. 65-85.

Floria, James David, to Goodrich, B. F., Company, The. Tire and wheel for passenger automobiles. 3,515,196, 6-2-70, Cl. 152-352.

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Rainey, Don E., 3,523,625.

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Florio, Gerald C., to Litton Precision Products, Inc. Laser apparatus. 3,538,455, 11-3-70, Cl. 331-94.5

Floros, John C.; and Wei, Chung Hwei, to Firestone Tire & Rubber Company, The. Emulsion polymerization process. 3,506,602, 4-14-70, Cl. 260-27.

Floros, Theodore G.: *See—*
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Florus, Gerhard: *See—*
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Florus, Hans-Jorg: *See—*
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Floser, Ronald K.; and Guetersloh, John W., to Sprague Electric Company. Stacked printed capacitor delay line. 3,539,949, 11-10-70, Cl. 333-29.

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Floss, Josef Georg; Bayerlein, Friedrich; Brodt, Rudolf; Henkler, Herbert; Strehler, Hugo; Wilhelm, Hans; and Gehm, Robert, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of printing plates. 3,512,971, 5-19-70, Cl. 96-35.1

Floss, Josef Georg; Brodt, Rudolf; Henkler, Herbert; Strehler, Hugo; and Wilhelm, Hans, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of printing plates. 3,516,828, 6-23-70, Cl. 96-35.1

Flotepak Corporation: *See—*
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Flototto, Fritz, Friedrichsdorfer Schulmobelfabrik und Sagewerk: *See—*
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Flototto, Fritz, to Flototto, Fritz, Friedrichsdorfer Schulmobelfabrik und Sagewerk. Chair. 3,512,835, 5-19-70, Cl. 297-458.

Flotte, Percy. Rotary cider press. 3,530,791, 9-29-70, Cl. 100-120.

Flounders, James M., to American Biltrite Rubber Co., Inc. High pressure hose. 3,540,486, 11-17-70, Cl. 138-109.

Flow, Henry C.; and Ruderman, Stanley G. Portable resuscitator unit. 3,515,135, 6-2-70, Cl. 128-145.6

Flow Pharmaceuticals, Inc.: *See—*
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Krezanoski, Joseph Z.; and Petricciani, John C., 3,549,747.

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Flower, Guiles, Jr., to AMP Incorporated. Surgical sponge and suction device. 3,520,300, 7-14-70, Cl. 128-276.

Flower, John Richard, to National Research Development Corporation. Disposable artificial kidney. 3,526,321, 9-1-70, Cl. 210-321.

Flower, Robert A., to Singer-General Precision, Inc. Optical thickness gauge. 3,536,405, 10-27-70, Cl. 356-167.

Flower, Robert A.: *See—*
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Flowers, Clifford D.; and Jakub, Marlyn T., to United States of America, Atomic Energy Commission. Fuel subassembly for a liquid-metal-cooled fast reactor. 3,505,170, 4-7-70, Cl. 176-78.

Flowers, Curtis G. Portable inflatable blind. 3,540,170, 11-17-70, Cl. 52-2.

Flowers, George H., Jr., to Waste Combustion Corporation. Apparatus for burning combustible products in exhaust gases and removing fly ash therefrom. 3,489,109, 1-13-70, Cl. 110-18.

Flowers, Gilbert E., to United States of America, Air Force. Weld electrode holder. 3,515,847, 6-2-70, Cl. 219-138.

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Flowers, Lawrence L. Transmission wire stringing device. 3,520,489, 7-14-70, Cl. 242-86.5

Flowers, Thad T., to Springs Mills, Inc. Bobbin seater and spacer attachment for use in a textile yarn process machine. 3,510,079, 5-5-70, Cl. 242-46.21

Flowers, Theodore R.; and Godel, Siegfried, to Sperry Rand Corporation. Portable electrical appliance. 3,517,235, 6-23-70, Cl. 310-80.

Floxite Company, Inc.: *See—*
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Floyd, Arthur John, to Imperial Chemical Industries Limited. 2-Oxotetrahydrofurans. 3,513,175, 5-19-70, Cl. 260-343.6

Floyd, Arthur John, to Imperial Chemical Industries Limited. Pesticides. 3,530,218, 9-22-70, Cl. 424-203.

Floyd, Arthur John; and Hinton, Roy Cyril, to Imperial Chemical Industries Limited. Phosphorus-containing α-valerolactones. 3,501,500, 3-17-70, Cl. 260-343.6

Floyd, Douglas, to Monsanto Chemicals (Australia) Limited. Preparation of benzimidazoles. 3,501,492, 3-17-70, Cl. 260-309.2

Floyd, Edwin, Jr.: *See—*
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Floyd, Edwin, Jr., to AMP Incorporated. Connection means for wave guide means. 3,500,264, 3-10-70, Cl. 333-98.

Floyd, George W., to Ex-Cell-O Corporation. Machine tool control system. 3,512,060, 5-12-70, Cl. 318-18.

Flubacker, Charles H., to Artag Plastics Corporation. Stamp vending machine. 3,538,801, 11-10-70, Cl. 83-205.

Flubacker, Charles H., to Artag Plastics Corporation. Check controlled stamp dispensing machines. 3,548,991, 12-22-70, Cl. 194-10.

Fluegel, Dale A., to Phillips Petroleum Company. Output logic for direct digital control system. 3,513,468, 5-19-70, Cl. 340-347.

Fluegel, Dale A., to Phillips Petroleum Company. Linear analog conversion. 3,549,998, 12-22-70, Cl. 324-120.

Flugel, Gunter. Appliance for loosening screw caps of receptacles. 3,503,286, 3-31-70, Cl. 81-3.41

Fluhr, Frederick R.; and McLaughlin, Donald J., to United States of America, Navy. IFF confidence evaluation circuit. 3,522,603, 8-4-70, Cl. 343-6.5

Fluhrer, Charles W.; and Larkin, Joseph F., to TRW Inc. Machine for assembling electrical components in a card package. 3,509,690, 5-5-70, Cl. 53-246.

Fluid Chemical Company, Inc.: *See—*
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Fluid Dynamics Incorporated: *See—*
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Flur, Barry L.; and Griest, Andrew J., to International Business Machines Corporation. Magnetic composition. 3,540,864, 11-17-70, Cl. 29-195.

Flusfeder, Joseph; and Palmer, Leonard. Apparatus for manufacturing disc records. 3,529,322, 9-22-70, Cl. 18-5.3

Fluur, Nils Alf Birger; and Soderholm, Arne Olof, to AB Max Sievert. Method for adjusting the effect of a pre-set batch weight value during the repeated weighing of material in a container. 3,522,853, 8-4-70, Cl. 177-1.

Fly, Walter H.; and Westermann, Donald H., to Miller Brewing Company. Ammonia complexes of hop alpha acids and modified alpha acids. 3,536,495, 10-27-70, Cl. 99-50.5

Flygare, Melvin E., to Maintenance-Free Machines, Inc. Sheet folding machine. 3,517,919, 6-30-70, Cl. 270-68.

Flynn, Charles S. Air purifying apparatus and method. 3,497,308, 2-24-70, Cl. 431-5.

Flynn, Charles T.: *See—*
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Flynn, Corporation: *See—*
Hayden, Leland E.; and Flynn, Corporation,3,512,255.

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Flynn, Frank M., to Technical Operations, Incorporated, mesne. Microdensitometer bilateral adjustable field slit scanning aperture including an override mechanism. 3,537,777, 11-3-70, Cl. 350-271.

Flynn, Jac; and Priese, Werner K., to Hills-McCanna Company. Adjustable stroke reciprocating pump. 3,527,550, 9-8-70, Cl. 417-383.

Flynn, James P., to Dow Chemical Company, The. Combination night-day signaling device. 3,508,518, 4-28-70, Cl. 116-114.

Flynn, John Barry, to Gillette Company, The. Dispensing device. 3,508,685, 4-28-70, Cl. 222-94.

Flynn, John B., to Honeywell Inc. Magnetometer utilizing a grooved reverse biased junction diode. 3,525,932, 8-25-70, Cl. 324-43.

Flynn, John H. Port-forming ribbon assembly and ribbons thereof. 3,499,720, 3-10-70, Cl. 431-349.

Flynn, John H. Ignition electrode unit. 3,505,568, 4-7-70, Cl. 317-79.

Flynn, John H. Piloted main flame burner with burner ribbons. 3,521,988, 7-28-70, Cl. 431-284.

Flynn, John H. Gas-stream heating method. 3,541,190, 11-17-70, Cl. 263-52.

Flynn, Kenneth George; and Jakas, Dalia Regina, to American Cyanamid Company. Method for preparing tetramethylguanidine. 3,551,490, 12-29-70, Cl. 260-564.

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Allen, James Forrest; and Latourette, Harold K., 3,509,218.
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Bacon, Roger J., 3,500,619.
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Forgione, Peter Salvatore, to American Cyanamid Company. Process for polymerizing aryl oxalates and products thereof. 3,513,137, 5-19-70, Cl. 260-78.5
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Forichon, Gaston Sebastien. Hydraulic press more particularly for treating metals by shaping. 3,518,869, 7-7-70, Cl. 72-453.
Forichon, Gaston Sebastien. Control means for pressure relief in hydraulic machines. 3,534,679, 10-20-70, Cl. 100-52.
Forichon, Michel, to Automobiles Peugeot, and Regie Nationale des Usines Renault. Anti-backlash gear mechanism. 3,496,794, 2-24-70, Cl. 74-440.
Forichon, Michel, to Automobiles Peugeot, and Regie Nationale des Usines Renault. Gearbox control device. 3,550,467, 12-29-70, Cl. 74-473.
Forim, Leo I., to Sterling Drug Inc. Self-venting multiple product mixing valve construction. 3,506,160, 4-14-70, Cl. 222-145.
Forim, Leo I., to Sterling Drug Inc. Aerosol double mixing unit with actuating means. 3,549,052, 12-22-70, Cl. 222-135.
Foringer and Company, Inc.: *See—*
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Foris, Peter L.; and Becker, William J., to National Cash Register Company, The. Light sensitive complexes of benzoindolinospiropyrans and halides of group II B metals. 3,510,308, 5-5-70, Cl. 96-90.
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Fork, Frank W., to Robertson, H. H., Company. Connecting means for trench cover plates. 3,494,381, 2-10-70, Cl. 138-92.
Fork, Frank W.; and Fuellenwarth, William H., to Robertson, H. H., Company. Spring clips for underfloor trench covers. 3,494,651, 2-10-70, Cl. 292-256.
Fork, Richard L.; and Tomlinson, Walter J., III, to Bell Telephone Laboratories, Incorporated. Frequency-stabilized optical maser. 3,496,488, 2-17-70, Cl. 331-94.5
Forkardt Kommanditgesellschaft: *See—*
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Forkert, Maurice J. Quick hitch device. 3,542,401, 11-24-70, Cl. 280-504.
Forkner, John H. Method for destemming figs. 3,507,310, 4-21-70, Cl. 146-226.
Forlani, Franco; and Minnaja, Nicola, to Olivetti-General Electric S.p.A. Voltage threshold photodiode and circuit assembly comprising the same. 3,500,448, 3-10-70, Cl. 250-211.
Formacek, Viktor: *See—*
Plander, Emil; Zahalka, Jindrich; and Formacek, Viktor,3,528,899.
Formaini, Robert L., to Allied Chemical Corporation. Process for the preparation of oil-modified alkyd compositions containing a tris-2-hydroxyalkyl isocyanurate. 3,544,496, 12-1-70, Cl. 260-22.
Forman, Barry J., to Hughes Aircraft Company. Waveguide slot radiator with electronic phase and amplitude control. 3,508,268, 4-21-70, Cl. 343-701.
Forman, Harold M. Method of incorporating a cutter in overwrapped packages and related apparatus. 3,499,260, 3-10-70, Cl. 53-14.
Forman, Michael Ralph. Numismatic storage devices. 3,500,995, 3-17-70, Cl. 206-0.84
Forman, Paul F.; and Bonacci, Edward L., to Perkin-Elmer Corporation, The. Surface finishing apparatus and method. 3,503,781, 3-31-70, Cl. 117-38.
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Formenti, Ferdinando; and Valbonesi, Giuseppe, to Societe Italiana Telecomunicazioni Siemens S.p.A. Two-way time-sharing resonant transfer communication system. 3,499,119, 3-3-70, Cl. 179-15.
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Heeb, Albert Joseph; and Chalmers, Edward Langworthy, II, 3,511,748.
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Formichelli, Joseph C.: *See—*
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Noyes, Billy P., 3,504,784.
Noyes, Billy P.; and Willard, Howard L., 3,508,379.
Formo, Alvin C., to Formost Packaging Machines Inc. Article pusher mechanism for bagging machines. 3,527,337, 9-8-70, Cl. 198-170.
Formo, Arnold L., Jr.: *See—*
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Formo, Arnold L.; and Formo, Arnold L., Jr. Knock-down tobacco hogshead banding structure. 3,526,333, 9-1-70, Cl. 217-44.
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Kalns, Ilmars, 3,497,044.
Fornells, Gilbert. Support device for frames, decorative elements and false ceilings. 3,521,419, 7-21-70, Cl. 52-506.
Fornerod, Andre, to Matisa Materiel Industriel, S.A. Methods and apparatus for adjusting rail track aligning equipment. 3,491,580, 1-27-70, Cl. 73-1.
Fornes, Ethel C.: *See—*
Miller, George, 3,528,905.
Forney, Albert J.: *See—*
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Forney, Edgar Wilmont, Jr.: *See—*
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Forney, Edgar Wilmot, Jr.; and Floyd, Edwin, Jr., to AMP Incorporated. Crimp-type connector with flowed seal. 3,492,408, 1-27-70, Cl. 174-75.
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Forney Engineering Company: *See—*
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Crudden, Joseph, 3,525,328.
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Forney, Jack D., to Forney Industries, Inc.Speaker system for welders' helmets and the like. 3,549,831, 12-22-70, Cl. 179-156.
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Forni, George P.; and Forni, George D. Cover arrangement for large receptacles. 3,521,537, 7-21-70, Cl. 94-34.
Foroulis, Zisis Andrew, to Esso Research & Engineering Company. Aryl-substituted aliphatic aldehydes as corrosion inhibitors. 3,530,059, 9-22-70, Cl. 208-47.

Foroulis, Zisis Andrew, to Esso Research and Engineering Company. Alkoxy-substituted aromatic aldehydes as corrosion inhibitors. 3,537,974, 11m3-70, Cl. 208-47.

Forpahl, Ray E., to Rhino Industries, Inc. Motor vehicle. 3,521,719, 7-28-70, Cl. 180-51.

Forrer, Max P., to General Electric Company. Microwave power rectifier with multipactor discharge. 3,521,146, 7-21-70, Cl. 321-8.

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Forrest, Ian Robert, to Universal Container (U.K.) Limited. Storage and transport containers. 3,506,180, 4-14-70, Cl. 229-14.

Forrest, Irving: *See*—
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Forrest, Norman, to Tenneco Chemicals, Inc. Method of fillig a flexible mold. 3,517,094, 6-23-70, Cl. 264-167.

Forrest, Stanley C., Jr., to Anaconda Wire and Cable Company, mesne. Reduction of distortion and losses in cable television distribution systems. 3,535,640, 10-20-70, Cl. 325-308.

Forrest, Tom H.: *See*—
Davidson, Roger; Palmer, Warren G.; and Forrest, Tom H.,3,489,679.

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Forrester, Frederick H.; and Lavin, Thomas J., to Bendix Corporation, The. Digital to analog converter. 3,505,671, 4-7-70, Cl. 340-347.

Forrester, John S., to Wildt Mellor Bromley Limited. Circular knitting machine. 3,545,234, 12-8-70, Cl. 66-125.

Forrester, Robert E.; and Downey, George T., to Aero-Flow Dynamics, Inc. Filter element fairing means. 3,487,932, 1-6-70, Cl. 210-130.

Forry, James E.; Nisbett, Cyril J.; and Thompson, Norman D., to Towmotor Corporation. Container lift frame. 3,499,563, 3-10-70, Cl. 214-621.

Fors, Torsten; and Tuneblom, Eskil, to Aktiebolaget Bibro-Verken. Vibrating tamping device. 3,492,924, 2-3-70, Cl. 94-49.

Forsaith, Ann L.: *See*—
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Forsberg, John W., to Lubrizol Corporation, The. Electrophoretic coating process. 3,502,511, 3-24-70, Cl. 148-6.15

Forsberg, John W., to Lubrizol Corporation, The. Novel phosphating solutions containing lead and fluoride ions. 3,518,129, 6-30-70, Cl. 148-6.15

Forsberg, John W., to Lubrizol Corporation, The. Thermosetting resins derived from N-3- oxohydrocarbon-substituted acrylamiyes. 3,518,326, 6-30-70, Cl. 260-828.

Forsberg, John W., to Lubrizol Corporation, The. Welding process. 3,519,783, 7-7-70, Cl. 219-92.

Forsberg, Karl Viking, to Avery Products Corporation. Method and apparatus for opening, filling and closing of bags. 3,543,466, 12-1-70, Cl. 53-14.

Forsberg, Raynor Morgan. Anchoring fasteners. 3,513,746, 5-26-70, Cl. 85-3.

Forsberg, Roy W., to Stanley Works, The. Door operating mechanism. 3,495,353, 2-17-70, Cl. 49-25.

Forsberg, Roy W., to Stanley Works, The. Height sensitive proximity door operator system. 3,497,995, 3-3-70, Cl. 49-25.

Forschler, Kurt, to Fansteel Inc. Apparatus for manufacture of resistance welded articles, especially bimetallic contact rivets. 3,514,574, 5-26-70, Cl. 219-103.

Forschner, Friedrich, to Bosch, Robert, G.m.b.H. Gear pump or motor. 3,539,282, 11-10-70, Cl. 418-132.

Forschungsinstitut fuer Ne-Metalle: *See*—
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Forse, Harry D. Bag sizing apparatus and method for coat finisher. 3,543,974, 12-1-70, Cl. 223-70.

Forse, Harry D. Cleaning and laundry system and method. 3,550,169, 12-29-70, Cl. 8-150.

Forsheda Gummifabrik AB: *See*—
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Forshier, James H.; and Chorney, Peter L., to FMC Corporation. Pallet loader. 3,493,126, 2-3-70, Cl. 214-6.

Forslund, Charles F. Adjustable printing head assembly for screen printing apparatus. 3,492,942, 2-3-70, Cl. 101-123.

Forslund, Charles F. Adjustable workpiece mount for printing apparatus. 3,507,217, 4-21-70, Cl. 101-407.

Forslund, Herbert B., to General Electric Company. Furnace with separable sections for heating silicon steel strip. 3,501,135, 3-17-70, Cl. 266-3.

Forsman, Charles R.: *See*—
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Forss, John A., to Honeywell Inc. Control device for water treatment apparatus. 3,512,643, 5-19-70, Cl. 210-96.

Forst, Wilhelm: *See*—
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Forste, Walter; and Ostermay, Gottfried, to VVB Elektrogerate. Method of making carbon commutator. 3,525,148, 8-25-70, Cl. 29-597.

Forste, Walter; and Ostermay, Gottfried, to VVB Elektrogerate. Method of making carbon commutators. 3,525,149, 8-25-70, Cl. 29-597.

Forste, Walter; Ostermay, Gottfried; and Schreiber, Joachim, to VVB Elektrogerate. Contacts between commutator lamellae and armature winding ends of electric motors. 3,532,913, 10-6-70, Cl. 310-234.

Forster, Bernhard: *See*—
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Bolle, Benjamin, 3,531,929.
Bolle, Benjamin, 3,541,780.

Forster, Donald C., to Hughes Aircraft Company. Stabilized laser system. 3,534,288, 10-13-70, Cl. 331-94.5

Forster, Donald M.: *See*—
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Forster, Eckehard: *See*—
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Forster, Eckenhard: *See*—
Geipel, Hans; Forster, Eckenhard; and Heinemann, Wilfried,3,506,468.
Geipel, Hans; Forster, Eckenhard; and Heinemann, Wilfried,3,522,936.

Forster, Eric O., to Esso Research and Engineering Company. Microwave vibrating resonating cavity and drying process. 3,545,093, 12-8-70, Cl. 34-1.

Forster, Eric O., to Esso Research and Engineering Company. Wire coating composition and microwave heating process. 3,551,199, 12-29-70, Cl. 117-227.

Forster, Ewald, to Ciba Limited. Epoxy resin moulding compositions containing phenolphthalein epoxy resin. 3,538,042, 11-3-70, Cl. 260-37.

Forster, Ewald: *See*—
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Forster, Felix R. Locks. 3,505,840, 4-14-70, Cl. 70-286.

Forster, Franz: *See*—
Kratzenberg, Dietrich; Forster, Franz; and Ahrens, Gerd,3,495,542.

Forster, Friedrich M. O. Magnetic nondestructive testing system with endless tape recording means. 3,491,288, 1-20-70, Cl. 324-37.

Forster, Friedrich M. O. Sensor for inspecting a test piece for inside and outside flaws utilizing means responsive to the type of flaw for adjusting the threshold of the sensor. 3,528,003, 9-8-70, Cl. 324-37.

Forster, Friedrich M. O. Magnetic nondestructive testing system utilizing magnetic tapes with means to indicate flow depth. 3,534,258, 10-13-70, Cl. 324-37.

Forster, George Michael; and Surgent, Louis Vincent, Jr. Forest terrain search radar method and apparatus. 3,500,395, 3-10-70, Cl. 343-5.

Forster, Hans-Joachim M., to Daimler-Benz Aktiengesellschaft. Installation for the control of automatically shifting motor vehicle transmissions. 3,500,705, 3-17-70, Cl. 74-863.

Forster, Hans-Joachim M., to Daimler-Benz Aktiengesellschaft. Installation for the control of automatic transmissions of motor vehicles. 3,511,115, 5-12-70, Cl. 74-861.

Forster, Hans-Joachim M.; and Eltze, Ulrich, to Daimler-Benz Aktiengesellschaft. Arrangement for the automatic shifting of a change-speed transmission for vehicles, especially for motor vehicles. 3,501,979, 3-24-70, Cl. 74-753.

Forster, Hans-Joachim M.; Katz, Klaus; and Bauer, Egon, to Daimler-Benz Aktiengesellschaft. Steering gear for motor vehicles. 3,489,065, 1-13-70, Cl. 92-79.

Forster, Klaus W.: *See*—
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Forster, Klaus W.; and Schaper, Donald W., to Kerma Corporation. Apparatus and method for charging a furnace. 3,497,089, 2-24-70, Cl. 214-19.

Forster, Michael J.; and Prettyman, Irven B., to Firestone Tire & Rubber Company, The. Method and apparatus for testing lice cords imbedded in rubber pads. 3,533,282, 10-13-70, Cl. 73-91.

Forster, Robert H.; and Sheldrake, Leslie G. D., to British Oxygen Company Limited, The. Refractory regenerative furnaces. 3,539,162, 11-10-70, Cl. 263-15.

Forster, Robert H.: *See*—
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Forsthoff, Hans-August: *See*—
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Forstner, Egon; and Ruoff, Karl, to Porsche, Dr.-Ing. H.c.F., K.G., Firma. Air-cooled engine cooling air distribution housing. 3,520,283, 7-14-70, Cl. 123-41.62

Forsvarets Fabriksverk: *See*—
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Forsyth, Leslie M. Radiographic apparatus employing balanced electrical bridge circuit means to coordinate the movements of cooperating X-ray film and X-ray tubehead holders. 3,492,482, 1-27-70, Cl. 250-93.

Forsyth, Leslie M. Radiographic X-ray tube stand and stereoshift mechanism employing a hypocycloidal planetary gear drive. 3,496,354, 2-17-70, Cl. 250-61.

Forsyth, Marvin Wayne, to Lithium Corporation of America, Inc. Process for preparing aqueous mixed lithium and sodium (and/or potassium) silicate solutions. 3,522,066, 7-28-70, Cl. 106-74.

Forsyth, Richard: *See*—
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Forsyth, Robert W.; and Forsyth, John P. Convertible camper vehicle. 3,514,147, 5-26-70, Cl. 296-23.

Forsythe, Arthur M., Jr., to Simmonds Precision Products, Inc. Aircraft position computer system. 3,540,051, 11-10-70, Cl. 343-112.

Forsythe, Charles O. Method for debugging computer programs. 3,551,659, 12-29-70, Cl. 235-153.

Fort, Edward F., to Ethyl Corporation. Carburetor. 3,529,586, 9-22-70, Cl. 123-119.

Fort, Edward F., to International Harvester Company. Fuel metering system. 3,539,157, 11-10-70, Cl. 261-34.

Fort, Edward F.; and Berndt, Wayne E., to International Harvester Company. Fluidic fuel metering system. 3,544,082, 12-1-70, Cl. 261-19.

Fort, Godfrey: *See*—
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Fort Lock Corporation: *See*—
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Fort Recovery Industries, Inc.: *See*—
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Fort Wayne Tool & Die, Inc.: *See*—
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Stuckey, Buddy S.; and Mannes, Stefan, 3,507,029.

Fortenberry, John D., to McDonnell Douglas Corporation. Fastening device. 3,517,583, 6-30-70, Cl. 89-1.

Fortescue, Peter; and Ringsmuth, Richard J., to Gulf General Atomic Incorporated, mesne. Nuclear reactor systems. 3,533,911, 10-13-70, Cl. 176-30.

Fortescue, Peter: *See*—
Yampolsky, Jack S.; Bell, Francis R.; and Fortescue, Peter,3,520,640.

Forti, Isabella: *See*—
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Fortier, Andre Louis Aime. Pneumatic measuring apparatus. 3,490,058, 1-13-70, Cl. 73-37.5

Fortier, Andre: *See*—
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Fortin, Conrad M.: *See*—
Ayotte, Ronald D.; Fortin, Conrad M.; and Waldo, Craig T.,3,548,242.

Fortin, Marcel: *See*—
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Fortner, William D., to Abex Corporation. Dual channel asynchronous object identification system. 3,488,655, 1-6-70, Cl. 343-6.5

Fortuna-Werke Maschinenfabrik Aktiengesellschaft: *See*—
Hacker, Kurt; Fickert, Gunther; and Kohl, Erwin, 3,513,496.
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Fortune, Henry James, to Plessey Company Limited, The. Record players. 3,545,768, 12-8-70, Cl. 274-47.

Fortune, Henry James; and Caddy, Edward William John, to Garrard Engineering Limited. Record changer. 3,489,418, 1-13-70, Cl. 274-10.

Fortune, William S. Vacuum desolder implement. 3,543,990, 12-1-70, Cl. 228-20.

Fortune, William S. Solder remover implement. 3,549,078, 12-22-70, Cl. 228-20.

Forty, Phillip J., to United States Time Corporation, The. Balance mechanism for an electronic watch. 3,487,630, 1-6-70, Cl. 58-28.

Forys, Edward L., to Hycon Mfg. Company. Adjustable slit width shutter. 3,491,673, 1-27-70, Cl. 95-57.

Fosdick, Theron; Hamburgen, Arthur; and Hennis, Robert B., to International Business Machines Corporation. Statistical error reduction in character recognition systems. 3,492,653, 1-27-70, Cl. 340-172.5

Foseco International Limited: *See*—
Groves, John Kington, 3,540,902.
Hammerton, Roderic Hugh, 3,540,514.
Holland, Michael Leslie, 3,537,842.
Ravault, Frank E. G., 3,519,781.

Foseco Trading A.G.: *See*—
Eccleston, Kenneth Thomas, 3,539,413.

Fosker, George R.; Nayler, John Herbert Charles; and Smith, Harry, to Beecham Group Limited. (Carboxycycloalkyl)acylaminopenicillins. 3,518,253, 6-30-70, Cl. 260-239.1

Foskett, Roger Darby; and Wasserman, Seymour N., to Dynamics Research Corporation. Linear encoder having a fringe pattern produced by optical imaging. 3,496,364, 2-17-70, Cl. 250-219.

Foskett, Roger D., to Vibrac Corporation. Stepping motor with nutating gear. 3,492,515, 1-27-70, Cl. 310-49.

Foskett, Roger D.: *See*—
Johnson, Clark E., Jr.; and Foskett, Roger D.,3,495,452.

Fosner, Robert B.; Dunseth, Maria G.; Legal, Casimer C., Jr.; and Schnidler, Lionel P., to Grace, W. R., & Co. Apparatus for mining and refining phosphorus. 3,512,942, 5-19-70, Cl. 23-260.

Fosnocht, Bruce A., to General Electric Company. Etching silicide coatings and article formed therefrom. 3,532,591, 10-6-70, Cl. 161-207.

Foss, Colby A.: *See*—
Wallace, Wesley Perry; and Foss, Colby A.,3,509,355.

Foss, George J.; Acton, Daniel D.; and Hart, Alexander W., to Anchor Hocking Corporation. Closure cap with rip-tab release and cam-off means. 3,519,159, 7-7-70, Cl. 215-39.

Foss, George W.; Leib, Robert G.; Campbell, James E.; and Smith, Thomas G. Shoe manufacturing. 3,545,023, 12-8-70, Cl. 12-54.3

Foss, John R.: *See*—
McCabe, Barkman C.; and Foss, John R.,3,489,121.

Foss, Peter Ernest; and Warner, Alfred Henry, to Floor Cleaning Services Limited. Wringing apparatus for floor mops. 3,504,393, 4-7-70, Cl. 15-262.

Foss, Rudolph George, to Ciba Corporation. Apparatus for tapering ends of laminated plastic pipe. 3,540,328, 11-17-70, Cl. 82-4.

Foss, Rudolph George: *See*—
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Fossel, Eric T., to Unimed, Inc. Salts of beta-(pyridyl alkyl) amines with 21- hydroxy steroid polyvalent acid esters. 3,522,244, 7-28-70, Cl. 260-239.5

Fossel, Spencer M., to Unimed, Inc. Method of effecting fecal softening. 3,495,010, 2-10-70, Cl. 424-312.

Fossel, Spencer M., to Unimed, Inc. Reduction of blood level cholesterol. 3,495,011, 2-10-70, Cl. 424-312.

Fossen, Josias: *See*—
Breukink, Bernard; Fossen, Josias; and Martens, Wietze,3,507,985.

Fossoul, Emile: *See*—
Van Dievoet, Jean Paul; Fossoul, Emile; Stievenart, Michel; Tavernier, Guy; Herzog, Gerold; Hildenbrand, Gunter; Michael, Horst; and Schwarz, Ernst,3,489,646.

Fostener, Warren, Corporation: *See*—
Meyer, Engelbert A.; and Reid, Donald J., 3,542,264.

Foster, Allen J., to RCA Corporation. High efficiency single turn magnetic head. 3,535,466, 10-20-70, Cl. 179-100.2

Foster, Allen K., to Hemphill Company. Grinding and polishing mechanism. 3,537,831, 11-3-70, Cl. 51-145.

Foster, Arthur; and Warner, Richard F., to Torq Engineered Products Inc. Derailment safety device. 3,535,511, 10-20-70, Cl. 246-172.

Foster, Basil Bernard, to International Standard Electric Corporation. Switching circuit. 3,538,393, 11-3-70, Cl. 317-151.

Foster Bros. Manufacturing Company: *See*—
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Foster, Charles N.; Chaplin, George F.; and Mayer, Willi F., to Continental Can Company, Inc. Container cap construction. 3,537,234, 11-3-70, Cl. 53-357.

Foster, Clifford R.: *See*—
Sylvester, Alfred Glenn; and Foster, Clifford R.,3,493,272.

Foster, Curtis W., to Lockheed Aircraft Corporation. Dual air chambered shock strut. 3,540,683, 11-17-70, Cl. 244-104.

Foster, Daniel S., to Gale, W. D., Inc. Air drier system. 3,543,482, 12-1-70, Cl. 55-162.

Foster, David Joseph. Floral supports. 3,526,992, 9-8-70, Cl. 47-41.11

Foster, Donald P.: *See*—
Yackel, Edward C.; and Foster, Donald P.,3,518,087.

Foster, Dudley George, to Watson, W., & Sons Limited. Electronically controlled variable mode respirator. 3,523,527, 8-11-70, Cl. 128-145.6

Foster, E. Gordon, to Shell Oil Company. Partial oxidation of organic compounds. 3,518,284, 6-30-70, Cl. 260-346.4

Foster, E. Gordon: *See*—
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Foster, Edwin E. Vehicular suspension with prestressed single plate leaf spring. 3,490,758, 1-20-70, Cl. 267-47.

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Foster, Edwin E. Detent for seat belt retractor. 3,531,060, 9-29-70, Cl. 242-107.2

Foster, Edwin E.; and Foster, Thomas E., said Foster, Thomas E., assor to said Foster, Edwin E. Wheel cover. 3,512,840, 5-19-70, Cl. 301-37.

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Foster, Francis W.: *See—*
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Foster, Fred F.; and Snider, John J. Hair winding device. 3,530,863, 9-29-70, Cl. 132-33.

Foster, Frederick D., to Shell Oil Company. Tertiary amylene recovery. 3,542,893, 11-24-70, Cl. 260-677.

Foster, George B., to Reilance Electric and Engineering Company, The. Surface interruption calibrated non-contact transducer system. 3,488,581, 1-6-70, Cl. 324-61.

Foster, George B., to Reliance Electric and Engineering Company, The. Non-contacting transducer system employing two sequentially switched electrodes to simulate vibration. 3,488,583, 1-6-70, Cl. 324-61.

Foster, George B., to Reliance Electric and Engineering Company, The. Non-contacting vibration analyzer. 3,512,402, 5-19-70, Cl. 73-71.4

Foster, George B.; and Lucka, Eugene R., to Reliance Electric and Engineering Company, The. Non-contact interrupted surface inspection apparatus providing an electrical analog of the surface profile. 3,504,279, 3-31-70, Cl. 324-61.

Foster, George B.; and Lucka, Eugene R., to Reliance Electric and Engineering Company, The. Non-contact dimension comparator employing constant frequency and amplitude pickup vibration. 3,541,435, 11-17-70, Cl. 324-61.

Foster, George B.; and Ostrander, Kenneth A., to Reliance Electric and Engineering Company, The. Apparatus for vibration detection and elimination employing a triggered oscillator stroboscopic flash and multifunction measurement circuitry. 3,533,296, 10-13-70, Cl. 73-466.

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Foster, John A., to Clark, J. L., Manufacturing Co., mesne. Tear-type plastic closure with plastic pull ring. 3,494,500, 2-10-70, Cl. 220-54.

Foster, John C., to Darvas, Nicolas, mesne. Telephone call answering and message recording and playback device including handset support coupler. 3,492,427, 1-27-70, Cl. 179-6.

Foster, John R., to Koret of California, Inc. Waist closure for garments. 3,500,478, 3-17-70, Cl. 2-221.

Foster, John T. Light transmitting and distributing device. 3,511,559, 5-12-70, Cl. 350-258.

Foster, Karl; and Seidel, Joseph, to Westinghouse Electric Corporation. Glass-coated electrical steel sheet. 3,528,863, 9-15-70, Cl. 148-31.55

Foster, Karl; and Seidel, Joseph, to Westinghouse Electric Corporation. Method of improving the magnetostriction and core loss of cube-on-face oriented magnetic steels. 3,533,861, 10-13-70, Cl. 148-113.

Foster, Kenneth M., to Air Reduction Company, Incorporated. Method of and apparatus for generating acetylene. 3,498,767, 3-3-70, Cl. 48-38.

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Foster, Norman F., to Bell Telephone Laboratories, Incorporated. Piezoelectric ultrasonic transducers. 3,492,509, 1-27-70, Cl. 307-299.

Foster, Norman; and Simpson, Kenneth Ward, to Northern Electric Company Limited. Device for determining the existence of peripheral edges of coins. 3,536,177, 10-27-70, Cl. 194-97.

Foster-Pegg, Richard W., to Struthers Energy Systems, Inc. Multiple turbine exhaust system. 3,494,126, 2-10-70, Cl. 60-39.15

Foster-Pegg, Richard W., to Struthers Energy Systems, Inc. Multiple turbine exhaust system. 3,500,642, 3-17-70, Cl. 60-102.

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Foster, Richard N. Manual adjustable control for air valve dampers. 3,495,521, 2-17-70, Cl. 98-41.

Foster, Richard N.; and Plepis, Stanislaus, to Trolex Corporation. Multiple zone air heating and cooling system for change-over control switch. 3,504,848, 4-7-70, Cl. 236-1.

Foster, Robert G., to Quinn Wire & Iron Works, Inc. Pipe forming machine with rotatable platform carrying rotatable supporting plate. 3,518,732, 7-7-70, Cl. 25-30.

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Fotis, Peter, Jr.; and Juveland, Omar O., to Standard Oil Company (Indiana). Groups Va and VIa metal oxide polymerization catalysts, catalyst preparation and polymerization process. 3,526,601, 9-1-70, Cl. 252-430.

Fotland, Richard A.; and Fichter, Harry L., Jr., to Horizons Incorporated, a division of Horizons Research Incorporated. Process for making latent dye salt image visible. 3,510,300, 5-5-70, Cl. 96-27.

Foto, Robot, und Electronic G.m.b.H. & Co. KG: *See—*
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Fouche, Jean Clement Louis, to Rhone-Poulenc S.A.10-Tertiaryaminoalkoxy- dibenzo[a,d]cycloheptadiene or salts thereof. 3,496,173, 2-17-70, Cl. 260-247.1

Fouche, Jean Clement Louis, to Rhone-Poulenc S.A. Substituted 10- or 11-piperazino dibenzocycloxeptadiene derivatives. 3,496,182, 2-17-70, Cl. 260-268.

Fouche, Jean Clement Louis, to Rhone-Poulenc S.A.S-oxides of 10-alkylpiperazino-10,11- dihydrodibenzo-[b,f]thiepines. 3,509,154, 4-28-70, Cl. 260-286.

Fouche, Jean Clement Louis, to Rhone-Poulenc S.A. Dibenzocycloheptatrienylpiperazines. 3,520,890, 7-21-70, Cl. 260-268.

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Fougere, Guy L., to Little, Arthur D., Inc. Standard light source. 3,522,464, 8-4-70, Cl. 313-117.

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Foulke, Donald Gardner; and Simonian, Atkin, to Sel-Rex Corporation. Process and solution for senitizing substrates for electroless plating. 3,516,848, 6-23-70, Cl. 117-47.

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Fountain, George A., to North American Rockwell Corporation. Gratefall adjusting mechanism for cotton processing machinery. 3,490,101, 1-20-70, Cl. 19-55.

Fountain, Gilbert, to United States of America, Navy. Plastic liners for controlled fragmentation. 3,491,694, 1-27-70, Cl. 102-67.

Fountain, Sherman E., Jr., to Marlette Homes, Inc. Machine for making building panels. 3,518,913, 7-7-70, Cl. 83-449.

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Fourneau, Jean Pierre; and Delourme, Jean Maurice Rene Alfred, to Laboratoires Houde. 1-(3,5 Dihalo-4-hydroxy-phenyl)-2-(2-aryloxy or 2- arylalkyl-isopropylamino)-propanols. 3,542,870, 11-24-70, Cl. 260-570.6

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Fouse, Samuel S.; and Hamilton, William W., Jr., to Westinghouse Electric Corporation. Multi-phase bus duct. 3,519,730, 7-7-70, Cl. 174-88.

Foust, Harry D., to Trane Company, The. Bimetallic damper actuator. 3,508,604, 4-28-70, Cl. 165-22.

Fout, Merrill G. Cutting tool. 3,538,795, 11-10-70, Cl. 77-58.

Fow, Robert S., to RCA Corporation. Magnetic core memory plane assembly and method. 3,513,453, 5-19-70, Cl. 340-174.

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Fowler, Alan B.; and Lasher, Gordon J., to International Business Machines Corporation. Bistable devices. 3,509,384, 4-28-70, Cl. 307-312.

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Fowler, Francis R.; and Ringwall, Carl G., to United States of America, Air Force. Electrostatic motor and nutation damper for cryogenic gyro rotor. 3,535,941, 10-27-70, Cl. 74-5.5

Fowler, Gary W., 1/2 to Gunn, Raymond, Jr. Ornamental lighting fixture. 3,521,048, 7-21-70, Cl. 240-3.

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Fowler, Michael Lawrence; Vallance, William; and Newman, Martin Myer, to International Standard Electric Corporation. Pipeline leak detection. 3,505,513, 4-7-70, Cl. 235-184.

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Fowler, Richard Thomas, to Girling Limited. Fluid pressure actuated motors. 3,547,004, 12-15-70, Cl. 92-63.

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Fowler, Ronald L., to Esso Production Research Company. Method and apparatus for making equipment connections at remote underwater locations and for producing fluids from underwater wells. 3,550,682, 12-29-70, Cl. 166-0.6

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Fowler, Roscoe T.; and Kaufman, Harold B., Jr., to DCA Food Industries Inc. Machine for the production of frozen stick confections. 3,539,218, 11-10-70, Cl. 294-87.

Fowler, Roy J. Spare tire carrying device. 3,494,493, 2-10-70, Cl. 214-454.

Fowler, Sam B.; and Risher, Lanning P., to Timely Enterprises, Inc. Mattress retainer and sheet clamp. 3,521,308, 7-21-70, Cl. 5-320.

Fowler, Vernon J., to General Telephone & Electronics Laboratories Incorporated. Beam deflection apparatus. 3,524,145, 8-11-70, Cl. 331-94.5

Fowler, Vernon J., to General & Electronics Laboratories, Incorporated. Beam-deflection apparatus. 3,544,202, 12-1-70, Cl. 350-285.

Fowler, Vernon J.; Schlafer, John Flushing; and Watson, William R., to General Telephone & Electronics Laboratories, Incorporated. Optical beam deflector. 3,544,201, 12-1-70, Cl. 350-285.

Fowler, William R., to Motorola, Inc. Bipolar differential discriminator. 3,551,695, 12-29-70, Cl. 307-235.

Fowler, William R.; and Hart, Thomas W., Jr., to Motorola, Inc. Two-state switchover amplifier system with plural current sources. 3,546,484, 12-8-70, Cl. 307-254.

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Fox, Anthony G.; and Walters, Douglas G., to Polymer Corporation Limited. Sensitization of latex foam rubber to gelation. 3,493,523, 2-3-70, Cl. 260-2.5

Fox, Arthur G., to Bell Telephone Laboratories, Incorporated. Optical maser mode selector. 3,504,299, 3-31-70, Cl. 331-94.5

Fox, Arthur G., to Bell Telephone Laboratories, Incorporated. Pulsed laser employing an active absorption cell. 3,522,553, 8-4-70, Cl. 331-94.5

Fox, Arthur G., to Bell Telephone Laboratories, Incorporated. Transverse and longitudinal mode locking in optical masers by traveling wave intracavity phase modulation. 3,543,180, 11-24-70, Cl. 331-94.5

Fox, Austin Leslie, to Molins Machine Company Limited. Electrode for spark erosion apparatus. 3,513,282, 5-19-70, Cl. 219-69.

Fox, Carol A.; Spear, Merton R., Jr.; and Wharton, Armistead, to Xerox Corporation. Development apparatus. 3,542,466, 11-24-70, Cl. 355-3.

Fox, Charles B.; and Zucker, Fredric E., to Pitney-Bowes, Inc. Document feeding device for copying machines. 3,498,710, 3-3-70, Cl. 355-29.

Fox, Charles J., to Eastman Kodak Company. 4-Diaryl-amino-substituted cholcone containing photoconductive compositions for use in electrophotography. 3,526,501, 9-1-70, Cl. 96-1.5

Fox, Charles J., to Eastman Kodak Company. Organic photoconductors containing the N-N nucleus. 3,542,546, 11-24-70, Cl. 96-1.5

Fox, Charles J.; and Johnson, Arthur L., to Eastman Kodak Company. Thermally unstable organic acid salts of triarylmethane dyes as senitizers for organic photoconductors. 3,488,705, 1-6-70, Cl. 96-1.6

Fox, Charles J.; and Johnson, Arthur L., to Eastman Kodak Company. Organic photoconductors. 3,527,602, 9-8-70, Cl. 96-1.6

Fox, Charles J.; and Johnson, Arthur L., to Eastman Kodak Company. Photoconductive compositions and elements. 3,533,785, 10-13-70, Cl. 96-1.5

Fox, Clarence D., to Borg-Warner Corporation. Supplemental fuel system. 3,540,419, 11-17-70, Cl. 123-27.

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Fox, Douglas E. R., to Cape Engineering Company Limited. Device for administering a gas to a patient. 3,537,450, 11-3-70, Cl. 128-145.6

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Fox, Edward I., to Crane, H. W., Company. Friction drive mechanism. 3,487,705, 1-6-70, Cl. 74-209.

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Fox, George C. Lined swimming pool. 3,511,002, 5-12-70, Cl. 52-146.

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Fox, Harry Alvin, Jr.: *See—*
Fritz, William Baird; Sanders, Neil Harrison; Reyner, Emerson Marshall, II; and Fox, Harry Alvin, Jr.,3,506,973.

Fox, Harvey, to Thiokol Chemical Corporation. Self destructing rocket propelled grenade. 3,490,373, 1-20-70, Cl. 102-64.

Fox, Homer M.; and Ruehlen, Forrest N., to Phillips Petroleum Company. Electrochemical fluorination of organic compounds. 3,511,760, 5-12-70, Cl. 204-59.

Fox, Ian W.; and Clark, Roy, to Polymer Corporation Limited. Method of making woven pile fabric carpets. 3,542,613, 11-24-70, Cl. 156-72.

Fox, Irving; and Labelson, Ralph. Mixing chamber and shutoff valve for controlling viscous fluids. 3,543,791, 12-1-70, Cl. 137-599.

Fox, J. Boyd: *See—*
Lamb, Charles Paul; Dudley, William A.; and Fox, J. Boyd,3,530,874.

Fox, J. Boyd; and Lamb, Charles Paul, to Merla Tool Corporation. Valves. 3,506,026, 4-14-70, Cl. 137-155.

Fox, James F., to Continental Can Company, Inc. Plastic can with metal end. 3,491,936, 1-27-70, Cl. 229-5.6

Fox, James F., to Continental Can Company, Inc. Plastic can with metal end. 3,550,840, 12-29-70, Cl. 229-5.6

Fox, James F.: *See—*
Irland, Lewis F.; and Fox, James F.,3,520,337.

Fox, Jay B., Jr. Meat chip. 3,497,363, 2-24-70, Cl. 99-208.

Fox, John H., Jr.: *See—*
Wilson, Calvin L.; Fox, John H., Jr.; and Serio, Vincent J., Jr.,3,547,315.

Fox, John H., to Nichols-Homeshield, Inc., mesne. Shear pin testing device. 3,543,575, 12-1-70, Cl. 73-133.
Wilson, Calvin L.; Fox, John H.; and Serio, Vincent J., Jr.,3,510,104.

Fox, Joseph R.; Marlow, Jerry R.; and Schaefer, Robert H., to General Motors Corporation. Transmission and controls. 3,505,907, 4-14-70, Cl. 74-753.

Fox, Joseph R.; and Schaefer, Robert H., to General Motors Corporation. Transmission control system. 3,546,974, 12-15-70, Cl. 74-869.

Fox, Leonard J.: *See—*
Scheffler, Paul H., Jr.; Fox, Leonard J.; Stump, Francis C.; and Gauthier, Carl M.,3,532,445.

Fox, Lester John; and McMillion, Sidney B., to Eskimo Pie Corporation. Method of producing multi-hued frozen confections and all purpose nozzle assembly therefor. 3,522,775, 8-4-70, Cl. 107-1.

Fox, Nathaniel S.; and Handy, Richard L. Method and apparatus for measuring the load deformation characteristics of soil by prestressing and then deforming. 3,499,320, 3-10-70, Cl. 73-94.

Fox, Paul L., to United States of America, Air Force. Optical-reimaging system. 3,517,447, 6-30-70, Cl. 35-25.

Fox, Samuel O., to De Muth Steel Products Company. Slip form apparatus. 3,510,098, 5-5-70, Cl. 249-20.

Fox, Samuel S., to United Aircraft Corporation. Convertible engine. 3,520,138, 7-14-70, Cl. 60-226.

Fox, Thomas A.; and Zentko, Joseph. Methods and apparatus for metal rolling. 3,550,419, 12-29-70, Cl. 72-199.

Fox-Stanley Photo Products, Inc.: *See—*
Severance, Clayton G., 3,537,933.

Foxboro Company, The: *See—*
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Bailey, John E., 3,491,593.
Bowditch, Hoel L.; William, George F.; and Bertone, Richard A., 3,515,162.
Bowditch, Hoel L.; and Williams, George F., 3,525,351.
Brown, Kenneth John, 3,527,985.
Ezekiel, Frederick D.; Hatch, Richard W., Jr.; and Kinner, Hans-Dieter, 3,490,477.
Flanagan, Allan L., 3,510,858.
Flanagan, Allan L.; and Hickes, Willis F., 3,527,984.
Hatch, Richard W., Jr.; and Kinner, Hans-Dieter, 3,523,547.
Holt, Joseph S., Jr., 3,526,902.
Nazareth, Alfred, Jr., 3,530,713.

Nelson, Kenneth E., 3,517,212.
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Olsen, Everett O., 3,533,100.
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Richardson, David A., 3,501,707.
Richardson, David A.; and Flanagan, Allan L., 3,517,680.
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Shinskey, Francis G., 3,531,990.
Williams, George F.; and Bowditch, Hoel L., 3,499,464.
Williams, George F.; and Bowditch, Hoel L., 3,516,691.

Foxwell, Leo G.; Smith, James E.; and Ziermann, Hermann, to United Aircraft Corporation. Respirator using pure fluid amplifier. 3,537,449, 11-3-70, Cl. 128-145.5

Foxwell, William J.; and Lomas, William F., to Ford Motor Company. Multiple range power transmission mechanism. 3,542,176, 11-24-70, Cl. 192-3.5

F. P. T. Industries Limited: *See—*
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Fr. Hesser Maschinenfabrik A.G.: *See—*
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Fracalossi, Roland N.: *See—*
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Fracassi, Renato D.; and Savage, John E., to Bell Telephone Laboratories, Incorporated. Data scrambler. 3,515,805, 6-2-70, Cl. 178-22.

Fracchia, Alfred A.: *See—*
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Frachot, Pierre G. J., to International Standard Electric Corporation. Process of fixing paper to metal. 3,541,671, 11-24-70, Cl. 29-471.9

Fradeneck, Ronald J.: *See—*
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Mihalow, Frederick A.; Fradeneck, Ronald J.; and Achey, Fred A.,3,494,200.

Fradette, Real J.: *See—*
Schwartz, Leon; and Fradette, Real J.,3,509,268.

Fradley, Gordon Albert; and Potts, Brian David John, to English Electric Company Limited, The. Electrical apparatus housing with interlock for removable units. 3,523,218, 8-4-70, Cl. 317-120.

Fraenkel, Benjamin Seev; and Feldman, Uri, to Yissum Research Development Company. Grazing incidence spectroscopic methods and apparatus. 3,521,957, 7-28-70, Cl. 356-79.

Frahm, Carl E.: *See—*
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Fraige, Richard, to C&F Products, Inc. Image dissecting and modifying lenses for spectacles. 3,549,302, 12-22-70, Cl. 350-146.

Fraim, Raymond A.: *See—*
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Fraioli, Anthony Vincent; Barber, William Austin; and Feldman, Allan Murry, to American Cyanamid Company. Composite paper electrode for a voltaic cell. 3,551,205, 12-29-70, Cl. 136-22.

Fraioli, Anthony V., to Bendix Corporation, The. Electro-mechanical hand having tactile sensing means. 3,509,583, 5-5-70, Cl. 3-1.1

Fraioli, Joseph, Sr. Baking dough rounder and molding machine. 3,521,578, 7-21-70, Cl. 107-4.

Frakes, Charles E., to Formsprag Company. Sprag and sprag clutch assembly. 3,498,429, 3-3-70, Cl. 192-45.1

Frakes, James H.: *See—*
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Fraleigh, William P.; Melanson, Alcide; and Arthur, Lorne H., to H & A Supply Company Limited. Fastener for securing a window track to a windowsill. 3,526,996, 9-8-70, Cl. 49-504.

Fraley, Lowell D.: *See—*
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Fram Corporation: *See—*
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Kearsley, Walter Hugh, 3,513,817.
McGonagle, Francis L.; and Fulford, Earle H., 3,540,407.
Tso, Ting Chang, 3,547,069.

Fram, Morris. Roving cutter with self-adjusting cutter roller. 3,491,443, 1-27-70, Cl. 30-128.

Frampton, Darrell N.; and Loveless, James C., to Deseret Pharmaceutical Company, Inc. Infusion device and method. 3,538,915, 11-10-70, Cl. 128-214.

Frampton, Orville D.; and Feldman, Julian. Cyano cyclohexenyl compounds. 3,515,740, 6-2-70, Cl. 260-464.

Framton Foods, Inc.: *See—*
Moon, Lester E., 3,543,475.

Fran-Stef Corporation: *See—*
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Franaszek, Peter A., to Bell Telephone Laboratories, Incorporated. Adaptive equalization of a digital communication system. 3,544,716, 12-1-70, Cl. 178-69.

Franc, Charles. Electrified packaging ornament. 3,500,035, 3-10-70, Cl. 240-10.

Franc, Charles. Disposable power source for providing illumination. 3,522,426, 8-4-70, Cl. 240-52.5

France Bed Co., Ltd.: *See—*
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France, David G.: *See—*
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France, Haywood G.: *See—*
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France, William M.: *See—*
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Francel, Josef; Gajewski, Norman F.; and Jagodzinski, Robert F., to Owens-Illinois, Inc. Method of inducing stress in glass containers and container made with a stressed zone. 3,535,070, 10-20-70, Cl. 215-32.

Franchini, Enzo, to Fiat Societa per Azioni. Steering gear for motor vehicles. 3,538,784, 11-10-70, Cl. 74-492.

Francia Formaceutici S.r.l.: *See—*
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Francis, Charles B. Replacement eraser for use on lead pencils. 3,523,321, 8-11-70, Cl. 15-431.

Francis, Clara A.: *See—*
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Francis, Dennis Futvoye: *See—*
Hall, Reginald Harold; and Francis, Dennis Futvoye,3,522,268.

Francis, Gerald A., to Carter-Wallace, Inc. Heater for aerosol foam-dispensing containers. 3,493,720, 2-3-70, Cl. 219-214.

Francis, Gerald A.; Henkener, Jerry A.; McNinch, Joseph H., Jr.; Pritz, Howard B.; and Widman, Michael U., to United States Steel Corporation. Apparatus for stencil-marking traveling product. 3,545,376, 12-8-70, Cl. 101-121.

Francis, Gus. Explosively severable element. 3,530,759, 9-29-70, Cl. 85-1.

Francis, James M.: *See—*
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Francis, James M.; Gable, Wyatt T., Jr.; Simpson, Forrest L.; and Hulseberg, Paul J., to International Harvester Company. Clean-boll separator conveyor for cotton harvester. 3,512,342, 5-19-70, Cl. 56-30.
Mecklin, Charles D.; Francis, James M.; and Hale, George H.,3,515,349.

Francis, James W., to Commercial Solvents Corporation. Ammonium nitrate-nitromethane type blasting agent containing urea as a crystallization inhibitor. 3,546,034, 12-8-70, Cl. 149-47.

Francis, James W., to Commercial Solvents Corporation. Ammonium nitrate-smokeless powder blasting agent containing sodium nitrate-urea as a crystallization inhibitor. 3,546,035, 12-8-70, Cl. 149-50.

Francis, John E.: *See—*
Doebel, Karl J.; and Francis, John E.,3,535,320.
Doebel, Karl J.; and Francis, John E.,3,539,567.
Doebel, Karl J.; and Francis, John E.,3,539,594.

Francis, John E., to Geigy Chemical Corporation. Derivatives of 9-pyridylalkyl-1,2,8,9- tetraazaphenalenes. 3,542,777, 11-24-70, Cl. 260-250.

Francis, Leo H.; and Treleven, Gerald J., to Foremost-McKesson, Inc. Electrodialysis process and apparatus. 3,544,436, 12-1-70, Cl. 204-180.

Francis, Louis. Interchangeable stringed instrument. 3,538,807, 11-10-70, Cl. 84-267.

Francis, Peter S.: *See—*
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Francis, Richard J.; and Francis, Clara A. Multielement radio-frequency antenna structure having linearly arranged elements. 3,541,567, 11-17-70, Cl. 343-873.

Francis, Samuel A., to Buzzards Corporation. Expendable transmission loss hydrophone system. 3,496,525, 2-17-70, Cl. 340-5.

Francis, William A., to LTV Aerospace Corporation. Latch mechanism for folding seat. 3,522,970, 8-4-70, Cl. 297-335.

Francis, William C.: *See—*
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Francisco, Bernardino. Justification device for a variable spacing typewriter. 3,491,872, 1-27-70, Cl. 197-84.

Francisco, Edward E., Jr., to Flow Technology, Inc. Apparatus for determining the flow characteristics of a volumetric flowmeter. 3,492,856, 2-3-70, Cl. 73-3.

Francisoud, Jacques; and Niogret, Gilbert, to Rhone-Poulenc S.A. Apparatus for extruding a length of material. 3,498,508, 3-3-70, Cl. 222-571.

Francisovich, John A., to Fibre-Weld, Inc. Method of subsurface burning of quantities of refuse material. 3,518,952, 7-7-70, Cl. 110-8.

Franck, Abraham, to Fabri-Tek Incorporated. Parallel binary adder-subtractor without carry storage. 3,488,481, 1-6-70, Cl. 235-175.

Franck, Donald R.; and Allen, Louis B., to Southern Tier Civic Center, Inc. Hockey stick with curved blade. 3,489,412, 1-13-70, Cl. 273-67.

Franck, Harry C.; and Hug, Hans A., to Sylvania Electric Products, Inc. Braking device. 3,528,530, 9-15-70, Cl. 188-1.

Franck, Howard S., to Philco-Ford Corporation. Foam stop. 3,516,566, 6-23-70, Cl. 220-9.

Franck, John M. Magnetic drag thermocouple. 3,533,288, 10-13-70, Cl. 73-343.

Franck, Jules Florine. Reel for winding film. 3,499,611, 3-10-70, Cl. 242-71.8

Francklyn, Gilbert W. Fishing lure. 3,514,890, 6-2-70, Cl. 43-42.05

Francklyn, Gilbert W. Shellfish harvesting machine. 3,521,386, 7-21-70, Cl. 37-55.

Franckowiak, Sigismond: *See—*
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Renault, Philippe; and Franckowiak, Sigismond,3,495,933.

Franco, Simone: *See—*
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Franco, Simone, to Ferrania, S.p.A. Mordants for acid dyes comprising polymers containing quaternary phosphonium groups. 3,547,649, 12-15-70, Cl. 96-114.

Franco, Simone; and Polla-Mattiot, Guido, to Ferrania S.p.A. Silver halide emulsion containing an aqueous latex prepared with a coupler having surfactant properties. 3,495,986, 2-17-70, Cl. 96-100.

Francois, Andre Charles: *See—*
Leroy, Francoise Andree Jeanne; Zelter, Zelmen; Francois, Andre Charles; Chassin, Andre; and Rodeaud, Jacques,3,507,662.

Francois, Edgar: *See—*
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Francois, Henri: *See—*
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Francois, Jean Georges, to Societe Anonyme Francaise du Ferodo. Braking devices for self-propelled vehicles. 3,531,164, 9-29-70, Cl. 303-24.

Francois, Marcel, to Compagnie Francaise Thomson Houston-Hotchkiss Brandt. Projectile having a useful charge which must be released at a point on the projectile trajectory. 3,491,689, 1-27-70, Cl. 102-35.6

Francom, Farrel J. Applicator for applying agricultural chemicals to soils. 3,533,366, 10-13-70, Cl. 111-7.

Francy, James R., to Scantlin Electronics, Inc. Releasable fastener for actuator element of snap switch, or the like. 3,549,846, 12-22-70, Cl. 200-172.

Frandee Corporation: *See—*
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Frandsen, Jorgen Melchior, to International Business Machines Corporation Tulip Meat Packers. Educational and instructional device. 3,517,449, 6-30-70, Cl. 35-53.

Frandsen, LeRoy; Lindner, Robert G.; and MacLeod, Jack H., to Robertson, H. H., Company. Prefabricated plastic building wall fin unit. 3,538,664, 11-10-70, Cl. 52-309.

Franek, Jozef Tadeusz; and Grinsted, Brian, to Metal Box Company Limited, The. Impeller devices for implements. 3,524,339, 8-18-70, Cl. 72-435.

Frangatos, Gerassimos: *See—*
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Frangos, Everett W. Headgear. 3,491,374, 1-27-70, Cl. 2-171.3

Frank, Arlen W.; and Baranauckas, Charles F., to Hooker Chemical Corporation. Perfluoro-1-cycloalken-1,2-ylene- diphosphoryl compounds. 3,501,555, 3-17-70, Cl. 260-932.

Frank, Arlen W.; and Baranauckas, Charles F., to Hooker Chemical Corporation. 2-Haloperfluoro-1-cycloalken-1-yl phosphoryl compounds. 3,505,433, 4-7-70, Cl. 260-955.

Frank Edge Saw Manufacturing Company: *See—*
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Frank, Edward C., to Boeing Company, The. Blade tracking system. 3,515,485, 6-2-70, Cl. 356-152.

Frank, Edward C.; and Rohner, Martin J., to Boeing Company, The. Tracking system for moving objects. 3,524,354, 8-18-70, Cl. 73-455.

Frank, Edward M.: *See—*
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Frank, George A.: *See—*
Emmons, William D.; and Frank, George A.,3,541,138.

Frank, Harry J. Capacitor start motor circuit. 3,510,741, 5-5-70, Cl. 318-221.

Frank, Harry J. Alternating current motor starting control. 3,519,911, 7-7-70, Cl. 318-221.

Frank, Harvey A.: *See—*
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Frank, Herbert J. Vertical velocity indicator. 3,501,954, 3-24-70, Cl. 73-179.

Frank, Hermann: *See—*
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Frank, Johann E.: *See—*
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Frank, Klaus: *See—*
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Frank, Kurt: *See—*
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Frank, Kurt. Controllable air duct for vertical and short take- off and landing type of air vehicle. 3,524,611, 8-18-70, Cl. 244-53.

Frank, Lee F., to Eastman Kodak Company. Efficient optical system. 3,536,434, 10-27-70, Cl. 350-202.

Frank, Ludolf: *See—*
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Frank, Morton; and Lesh, Sol. Nematode extraction device. 3,520,412, 7-14-70, Cl. 210-73.

Frank, Raymond C., to Environetics, Inc. Motor home conversion unit. 3,501,194, 3-17-70, Cl. 296-23.

Frank, Richard B., to Nuclear-Chicago Corporation. Liquid scintillation counting standardization. 3,500,447, 3-10-70, Cl. 250-106.

Frank, Robert G., to PPG Industries, Inc. Apparatus for and method of bending glass sheets between opposed press shaping molds. 3,529,947, 9-22-70, Cl. 65-104.

Frank, Robert L.; and Mickelsen, Olaf, to Morton International, Inc. Salt substitute. 3,514,296, 5-26-70, Cl. 99-143.

Frank, S. M., & Co., Inc.: *See—*
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Fassbender, Frederick A., 3,520,308.
Shamsi, Athar A., 3,526,600.

Frank, Stanley L.; and Dobrosielski, Stephen S., to Westinghouse Electric Corporation. Combined indicating lamp and push-button switch unit. 3,511,955, 5-12-70, Cl. 200-167.

Frank, Ulrich A.; and Wollmeringer, Bernard C., to Hoffmann-La Roche Inc., mesne. Monitoring display. 3,545,431, 12-8-70, Cl. 128-2.05

Frank, Wallace E., to Response Systems Corporation, mesne. Student-responder apparatus. 3,538,626, 11-10-70, Cl. 35-48.

Frank, Wally, Ltd.: *See—*
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Frank, William J., Jr., to Warner & Swasey Company, The. Pulsing system including binary coded decimal rate multiplier. 3,541,417, 11-17-70, Cl. 318-18.

Franke, Fritz: *See—*
Koch, Harry; Holetzeck, Klaus; and Franke, Fritz,3,492,438.

Franke, John L.: *See—*
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Franke, Kurt; and Hirsch, Kurt, to U.S. Philips Corporation, mesne. High vacuum discharge tube for high voltages. 3,491,232, 1-20-70, Cl. 313-240.

Franke, Norman W.: *See—*
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Barie, Walter P., Jr.; and Franke, Norman W.,3,535,404.
Barnes, Wendell A.; Bash, David L.; and Franke, Norman W.,3,544,576.

Franke, Paul G., to Kimberly-Clark Corporation. Sleevemaking apparatus and method. 3,532,582, 10-6-70, Cl. 156-516.

Franke, Rudiger: *See—*
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Franke, Werner: *See—*
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Frankel, Alan H.: *See—*
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Frankel Connector Company: *See—*
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Astrove, Edgar, 3,528,009.

Frankel, Edwin N., to United States of America, Agriculture. Cis-retaining selective hydrogenation of vegetable oils. 3,542,821, 11-24-70, Cl. 260-409.

Frankel, Ernst G., to Litton Systems, Inc. Wave damping device. 3,487,645, 1-6-70, Cl. 61-3.

Frankel, Ernst G., to Litton Systems, Inc. Lighter hydrolift device. 3,508,510, 4-28-70, Cl. 114-43.5

Frankel, Ernst G., to Litton Systems, Inc.Energy-absorbing beach for ship's wells and tanks. 3,513,797, 5-26-70, Cl. 114-125.

Frankel, Ferdinand: *See—*
Astrove, Edgar, 3,528,009.

Frankel, Ferdinand, Mrs.: *See—*
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Frankel, Jerome L.: *See—*
McBride, Thomas G.; and Frankel, Jerome L.,3,535,158.

Frankel, Max; Gertner, David; Broze, Mordechai; Hanna, Pardess; and Zilkha, Albert, to Yissum Research Development Company of the Hebrew University of Jerusalem. Silicon-containing β-phenylethylamines and intermediates for their preparation. 3,505,376, 4-7-70, Cl. 260-448.2

Frankel, Merwin H., to Geigy Chemical Corporation. Measuring dispenser. 3,512,681, 5-19-70, Cl. 222-158.

Frankel, Milton B.; and Rowley, Gerald L., to North American Rockwell Corporation. Dinitrohalo compounds. 3,488,396, 1-6-70, Cl. 260-644.

Frankel, Milton B.; and Rowley, Gerald L., to North American Rockwell Corporation. Novel explosive compounds. 3,544,630, 12-1-70, Cl. 260-558.

Frankel, Milton B.; and Rowley, Gerald L., to North American Rockwell Corporation. Aromatic nitro compounds. 3,544,640, 12-1-70, Cl. 260-645.

Frankel, Stanley P., to Computron Corporation. Recirculating memory timing. 3,518,629, 6-30-70, Cl. 340-172.5

Frankenberg, Edward V.; and Griffith, Norman N., to Fleco Corporation. Tree shear assembly. 3,529,641, 9-22-70, Cl. 144-34.

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Frankenstein Group Limited: *See—*
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Frankevicz, John; and Short, Sidney M., to Oxford Paper Company. Inactivation of alpha amylase enzymes by fluorosilicate compounds. 3,513,072, 5-19-70, Cl. 195-31.

Frankl & Kirchner, Fabrik fur Elektromotoren une Elektrische Apparate: *See—*
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Frankl, Ernest, to Winthrop-Atkins Co., Inc. Method of making three-dimensional objects from polystyrene. 3,546,040, 12-8-70, Cl. 156-250.

Frankland, Roger A., to Textronix, Inc. Cathode ray storage tube having a target dielectric with collector electrodes extending therethrough. 3,531,675, 9-29-70, Cl. 313-68.

Frankland, William H. Wheel and bearing assembly. 3,492,055, 1-27-70, Cl. 308-36.1

Frankle, Gerhard: *See—*
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Frankle, Harry R. Card feeding apparatus. 3,531,105, 9-29-70, Cl. 271-36.

Frankle, Helmut; and Biebricher, Manfred, to Bolkow Gesellschaft mit beschrankter Haftung. Valve lever arrangement for rocket engines. 3,529,627, 9-22-70, Cl. 137-595.

Franklin, Burton P.; and Bless, Paul W., to Black and Decker Manufacturing Company, The, mesne. Vibrating tool construction. 3,530,577, 9-29-70, Cl. 30-169.

Franklin, Clarence Willard. Self-releasing animal tether. 3,540,089, 11-17-70, Cl. 24-201.

Franklin, Clifford John: *See—*
Petrie, James Alexander; Steel, Thomas; Poucher, Michael; Franklin, Clifford John; and McCarthy, Denis,3,549,270.

Franklin, Edmond G.: *See—*
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Franklin Electric Co., Inc.: *See—*
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Hansen, Omar, Jr.; Littlefield, Carl; and Haddix, Allen R., 3,505,780.
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Schaefer, Edward J., 3,522,506.

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Franklin, John J., to Proctor & Schwartz, Inc. Spreader for particulate material. 3,513,961, 5-26-70, Cl. 198-53.

Franklin Manufacturing Company: *See—*
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Franklin, Matthew J.; and Needham, Carl W., to Raymond International, Inc. Cocoon curing of concrete. 3,503,788, 3-31-70, Cl. 117-94.

Franklin, Maurice G., to Stone Container Corporation. Packaging machine. 3,531,914, 10-6-70, Cl. 53-230.

Franklin Mint, Inc., The: *See—*
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Franklin, Robert C.; and Boyd, William R., to Beckman Instruments, Inc. Cell identification and selection system for centrifuge apparatus. 3,518,012, 6-30-70, Cl. 356-197.

Franklin, Robert C.; and Lane, Richard O., to Bendix Corporation, The. Grinding wheel. 3,528,203, 9-15-70, Cl. 51-168.

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Franklin, William D., Jr.; and Kozlow, Alex, to Philco-Ford Corporation. Portable television receiver cabinet structure having adjustable legs. 3,538,250, 11-3-70, Cl. 178-7.9

Franklin, William E.; Mack, Charles H.; and Rowland, Stanley P., to United States of America, Agriculture. Dicyclopentadiene dicarboxylic acid-crosslinked cellulosic textiles which may be durably creased or uncreased due to chemical bond reformation under heating conditions. 3,547,574, 12-15-70, Cl. 8-120.

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Start, John F.; Seglin, Leonard; and Franko-Filipasic, Borivoj R.,3,492,093.

Frankovich, John H., to Sinclair Research, Inc. Silicone pressure-drop additive for hydrocracking process. 3,498,908, 3-3-70, Cl. 208-112.

Frankovich, John H.; Wunderlich, Donald K.; and Foster, Robert L., to Sinclair Research, Inc. Process for washing and removing catalyst fines from a bed of solid catalyst particles in a reactor. 3,524,822, 8-18-70, Cl. 252-416.

Frankovich, John H.: *See—*
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Frankovich, John Michael. Landing gear for airplanes. 3,510,093, 5-5-70, Cl. 244-104.

Frankowski, Jerome J.; and Stuck, Thomas E. Carburetor. 3,549,133, 12-22-70, Cl. 261-51.

Franks, Albert, to National Research Development Corporation. Method of making a three-dimensional diffraction grating. 3,507,564, 4-21-70, Cl. 350-320.

Franks, Charles Richard; Kennedy, Alexander W.; and Semancik, John R., to Diamond Shamrock Corporation. Stabilization of polymers of vinyl fluoride. 3,533,981, 10-13-70, Cl. 260-31.8

Franks, Harry E. Ignition device having elongated planer parallel electrodes between which a pulse of ionizable gas is passed. 3,521,105, 7-21-70, Cl. 313-120.

Franks, Joseph; Mash, Derek Hubert; and Peters, Jack Rowland, to International Standard Electric Corporation. Semiconductor varactor diode with undulate PN junction. 3,495,137, 2-10-70, Cl. 317-234.

Frankson, Gary D., to International Telephone and Telegraph Corporation. Method of making an ultraviolet sensitive template. 3,510,371, 5-5-70, Cl. 156-14.

Frans, John E.: *See—*
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Fransicold Corporation: *See—*
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Franson, Gunnar R.: *See—*
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Franssen, Nico Valentinus, to U.S. Philips Corporation, mesne. Electronic musical instrument provided with generators and individual formant filters. 3,525,796, 8-25-70, Cl. 84-1.11

Franssen, Pierre J.: *See—*
DeKock, Robert J.; Veermans, Antonie; and Franssen, Pierre J.,3,541,081.

Franssen, Theodorus, to N.V. Machinefabriek L. Te Strake. Driving mechanism for the heald shafts of a weaving machine operating with a closed shed. 3,519,027, 7-7-70, Cl. 139-57.

Fransson, Johnny: *See—*
Bergendal, Arne; and Fransson, Johnny,3,543,590.

Fransson, Torgny Eric Charles, to Aktiebolaget Bofors. Multiple chill mold device. 3,501,125, 3-17-70, Cl. 249-106.

Frant, Martin S.; and Rochow, Eugene G., to Prototech Company. Heating and catalytic chemical reaction apparatus. 3,507,627, 4-21-70, Cl. 23-288.

Frantz, Franklin D., to Sprague Electric Company. Nickel-nickel oxide capacitor. 3,548,266, 12-15-70, Cl. 317-230.

Frantz, Lee M.: *See—*
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Frantz, Richard L.: *See—*
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Frantz, Robert D., to Western Electric Company, Incorporated. Method of operating a single-stage amplifier as a linear amplitude modulator. 3,539,947, 11-10-70, Cl. 332-31.

Frantz, Robert Houston; and Henschen, Homer, to AMP Incorporated. Electrical connectors for printed circuit boards. 3,524,161, 8-11-70, Cl. 339-176.

Frantz, Robert R., to SI Handling Systems, Inc. Tow line conveyor switch system. 3,532,059, 10-6-70, Cl. 104-88.

Frantzen, John J., to Buckbee-Mears Company. Metallized glass master plates for photoprinting. 3,539,407, 11-10-70, Cl. 156-3.

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Franz, Arvel O., to Chemical Products Corporation. Method of brine treatment for removal of impurities. 3,499,724, 3-10-70, Cl. 23-42.

Franz, Hans-Jurgen, to Endress & Hauser GmbH & Co. Apparatus for the capacitative measurement of the level of material in a container. 3,494,193, 2-10-70, Cl. 73-304.

Franz, Henry W.; and Gonshor, Michael L., to Kennecott Copper Corporation. Method and apparatus for determining particle size distribution in discrete solids including an elutriation tube. 3,519,353, 7-7-70, Cl. 356-102.

Franz, Henry W.; and Gonshor, Michael L., to Kennecott Copper Corporation. Shell-type transformer instrument for determining the amount of magnetic material in a substance wherein a sample of the substance functions as the center leg of the transformer. 3,535,619, 10-20-70, Cl. 324-13.

Franz, Herbert; Haug, Gerhard; Meyer, Friedhelm; Werner, Frithjof; Straif, Kurt; Steimer, Richard; Sayer, Johannes; and Reichelt, Hans, to Bosch, Robert, G.m.b.H. Full wave rectifier assembly, particularly for combination with automotive type alternators. 3,527,972, 9-8-70, Cl. 310-68.

Franz, Norman C. High velocity liquid jet. 3,524,367, 8-18-70, Cl. 83-53.

Franz, Norman C. Method for the high velocity liquid jet cutting of soft materials. 3,532,014, 10-6-70, Cl. 83-53.

Franz, Raymond A.; and Downs, Ronald O., to Monsanto Company. 2,5-Dimethylhexene production from isobutylene. 3,488,403, 1-6-70, Cl. 260-683.1

Franz, Raymond A.; and Hill, James C., to Monsanto Company. α-Olefin isomerization. 3,509,228, 4-28-70, Cl. 260-683.2

Franz, Rudolph J., to Eaton Yale & Towne, Inc. Transducer. 3,545,472, 12-8-70, Cl. 137-116.5

Franz, Rudolph L.; and Obermaier, Frank E. Electro-magnetic transducer. 3,500,722, 3-17-70, Cl. 91-446.

Franzen, Gustav: *See—*
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Franzen, Gustav; and Lossa, Ulrich, to Palitex Project-Company GmbH. Two-for-one twisting machine. 3,534,539, 10-20-70, Cl. 57-34.

Franzen, Hans Arne Edgar, to Aktiebolaget Bofors. Device for damping acoustic vibrations generated by the rotation of a prismatic body within a drum. 3,526,292, 9-1-70, Cl. 181-33.

Franzen, Romer H. Side action piercing unit. 3,541,909, 11-24-70, Cl. 83-588.

Franzen, Volker: *See—*
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Eggensperger, Heinz; Franzen, Volker; and Stephan, Hans,3,518,224.
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Frappard, Charles; Roulot, Maurice; and Brule, Albert, to Compagnie Generale d'Electricite. Head for gaseous flux molecular laser. 3,500,239, 3-10-70, Cl. 331-94.5

Frasca, Rudolf A. Aviation trainer. 3,526,043, 9-1-70, Cl. 35-12.

Frasca, Rudolf A. X-Y recorder for aviation training device. 3,544,692, 12-1-70, Cl. 35-10.2

Frasca, Rudolf A.; and Saldeen, John A. Aviation trainer. 3,534,486, 10-20-70, Cl. 35-12.

Fraschetti, Francesco, to Nuovo Pignone S.p.A. System for adjusting the recycle rate of flow in ammonia synthesizing processes. 3,512,938, 5-19-70, Cl. 23-252.

Frase, Sylvan H., to Sperry Rand Corporation. Remote switch status sensor. 3,546,476, 12-8-70, Cl. 307-88.

Fraser, Clarence Hosea, to Metal Trim Limited. Joint for connecting purlins and sag rods. 3,503,641, 3-31-70, Cl. 287-189.36

Fraser Companies Limited: *See—*
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Fraser, David B., to Bell Telephone Laboratories, Incorporated. Temperature stable ultrasonic delay line composed of SiO_2 and MgF_2 and method of making same. 3,536,506, 10-27-70, Cl. 106-58.

Fraser, Douglas S.: *See—*
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Fraser, George L.: *See—*
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Fraser, James C., to General Electric Company. Solid state corona generator for chemical-electrical discharge processes. 3,496,092, 2-17-70, Cl. 204-312.

Fraser, John P., to Shell Oil Company. Detector configuration for the ultrsonic leak detector. 3,517,546, 6-30-70, Cl. 73-40.5

Fraser, John S., to Atomic Energy of Canada Limited. Intense neutron generator. 3,500,098, 3-10-70, Cl. 313-61.

Fraser, Margaret Evelyn, to Allen & Hanburys Limited. Bacteria inoculated Plaster of Paris and agricultural seeds admixed therewith. 3,499,748, 3-10-70, Cl. 71-7.

Fraser, Robert William: *See—*
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Frassetto, Bruno S.: *See—*
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Fratalia, Angelo R., 1/2 to Luckiewicz, Frank H. Liquid level control device. 3,545,481, 12-8-70, Cl. 137-387.

Frattallone, Michele. Heel having interchangeable support portion. 3,514,879, 6-2-70, Cl. 36-42.

Fratto, Anthony J.; James, Richard D.; and Helm, James D., to Texas Gulf Sulphur Company, Inc. Outside drive for a tilting pan filter. 3,537,589, 11-3-70, Cl. 210-328.

Fratzke, Harold A.; Gniffke, Glenn D.; and Van Selus, Samuel H. Towing device for vehicles. 3,547,290, 12-15-70, Cl. 214-506.

Frau Ute Annemarie: *See—*
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Frauenglass, Elliott, to Loctite Corporition. Non-flowable anaerobic adhesive. 3,547,851, 12-15-70, Cl. 260-23.5

Frauenstein, Manfred Gerhard, to VEB Qualitats- und Edelstahl-Kombinat. Equipment for electroslag remelting of metals. 3,510,562, 5-5-70, Cl. 13-10.

Fraula, Louis F.: *See—*
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Frautnick, James C.: *See—*
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Frayer, Theodore, to Goodyear Tire & Rubber Company, The. Brake pressure control valve. 3,514,161, 5-26-70, Cl. 303-21.

Fraylick, John R.; Hankey, William J.; and Mann, John S., to Standard Oil Company, The (Ohio). Sensing valve. 3,491,911, 1-27-70, Cl. 220-26.

Frayne, Robert M., to Watlow Electric Manufacturing Company. Metal forming method. 3,504,432, 4-7-70, Cl. 29-611.

Fraze, Ermal C.: *See—*
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Brown, Omar L., 3,545,638.
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Frazel, Wilbur H.; Turtle, Quentin C.; and Yip, Thomas, to General Signal Corporation. Chlorine residual controlling system. 3,528,545, 9-15-70, Cl. 210-96.

Frazer, August Henry, to Du Pont de Nemours, E. I., and Company. Aromatic polyhydrazide solutions and articles. 3,536,651, 10-27-70, Cl. 260-30.8

Frazer, Ceylon B.: *See—*
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Frazier, Bruce J.; and Kendrick, William D., to Halliburton Company. Butterfly valve. 3,534,939, 10-20-70, Cl. 251-306.

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Frazier, Dallas H. Spacer. 3,491,647, 1-27-70, Cl. 85-51.

Frazier, David M. Method and apparatus for eliminating cavitation. 3,539,275, 11-10-70, Cl. 417-189.

Frazier, Donald. Rack structure. 3,489,291, 1-13-70, Cl. 211-176.

Frazier, Larry C.; and Mallory, Edwin E., to National-Standard Company. Tire building apparatus. 3,536,566, 10-27-70, Cl. 156-415.

Frazier, Larry C.: *See—*
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Frazier, Richard J.: *See—*
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Frazier, William F.: *See—*
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Freake, Ronald, to Castrol Limited. Determination of bacteria. 3,532,603, 10-6-70, Cl. 195-103.5

Freber, Elmer C., to Marquette Tool and Die Company. Vehicular wheel assemblies. 3,511,518, 5-12-70, Cl. 280-80.

Frech, Everett Bryant, to Riegel Paper Corporation. Universal graphic display material having a embossed polyvinyl fluoride surface layer. 3,549,463, 12-22-70, Cl. 161-2.

Frech, Kenneth J., to Goodyear Tire & Rubber Company, The. Cracking of olefins. 3,529,032, 9-15-70, Cl. 260-680.

Frech, Louis W., to United States Steel Corporation. Method of operating basic oxygen furnace. 3,520,678, 7-14-70, Cl. 75-60.

Frechet, Pierre Joseph: *See—*
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Freda, Nicholas M.: *See—*
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Freda, Richard H. Packing box for sausage casings. 3,550,977, 12-29-70, Cl. 312-31.

Fredd, John V.: *See—*
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Fredd, John V., to Otis Engineering Corporation. Well tools. 3,494,417, 2-10-70, Cl. 166-73.

Fredd, John V., to Otis Engineering Corporation. Shuttle valve. 3,533,430, 10-13-0, Cl. 137-112.

Fredell, Gary D., to Bliss, E. W., Company. Drive mechanism. 3,501,968, 3-24-70, Cl. 74-128.

Fredell, Gary D., to Gulf & Western Industries, mesne. Drive mechanism having improved locking means. 3,543,596, 12-1-70, Cl. 74-128.

Frederick, Charles R., to Murphy, G. W., Industries, Inc. Drill bit. 3,534,823, 10-20-70, Cl. 175-337.

Frederick, Claud, Jr., to Steelcraft Manufacturing Co., The. Adjustable weather sealing rail for doors. 3,504,456, 4-7-70, Cl. 49-470.

Frederick, David G.: *See—*
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Frederick, George A., to Peoples Development Inc., mesne. Impact specimen fracture analyzer. 3,519,834, 7-7-7, Cl. 250-222.

Frederick, George A.; and Burchard, Leonard E., to Peoples Gas Light and Coke Company, The, mesne. Pigging device. 3,546,642, 12-8-70, Cl. 335-305.

Frederick, Henry E.; and Hathorn, Jack L., to Johnson, Gordon, Company, mesne. Neck dehydrating apparatus for poultry. 3,499,184, 3-10-70, Cl. 17-11.

Frederick, Henry E.: *See—*
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Frederick, K. Storm, Jr.; and Smiley, Eldridge H., to Detection, Ltd. Mechanical fire detection alarm device. 3,529,567, 9-22-70, Cl. 116-102.

Frederick, Kenneth L., to Western Electric Company, Incorporated. Electrical connector. 3,489,986, 1-13-70, Cl. 339-49.

Frederick, Russell E.; and Nystrom, Thomas L., to Minnesota Mining and Manufacturing Company. Thermoelectric generator apparatus. 3,546,025, 12-8-70, Cl. 136-205.

Frederickson, Gustav O., to Superior Electric Company, The. Variable reluctance electric stepping motor with bias winding and field energizing circuitry. 3,510,699, 5-5-70, Cl. 310-49.

Frederickson, Robert Eugene; and Hammond, Walter Joseph, to McCulloch Corporation. Chain saw with vibration isolation system. 3,542,095, 11-24-70, Cl. 143-32.

Frederickson, Sherman E.: *See—*
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Frederiksen, Alfred Anton Vilhelm. Hermetically sealed container and the method of manufacturing. 3,525,454, 8-25-70, Cl. 220-53.

Frederiksen, Thomas M., to Motorola, Inc. Voltage regulator with continuously variable DC reference. 3,538,424, 11-3-70, Cl. 323-22.

Fredlake, John J.; Keck, Milton F.; and Schwent, Glennon V., to United States of America, Navy, mesne. Turboprop fuel control for use with contaminated or varied fuels. 3,514,949, 6-2-70, Cl. 60-39.28

Fredrick, Raymond E., Jr., to Adams-Russell Co., Inc. Broad-band doubly-balanced mixer or modulator including hybrid circuits. 3,492,603, 1-27-70, Cl. 332-47.

Fredrick, Russell E.: *See—*
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Fredricksen, Vern P., to Andersen Corporation. Horizontally sliding sash windows. 3,538,642, 11-10-70, Cl. 49-213.

Fredrickson, Dennis L.; and Gothe, Allyn L., to Collins Radio Company. Internal reference voltage source equipped switching regulator. 3,497,794, 2-24-70, Cl. 323-22.

Fredrickson, James Donald, to Reynolds, R. J. Tobacco Company. Process for increasing the filling capacity of tobacco. 3,524,451, 8-18-70, Cl. 131-140.

Fredrikson, Bengt: *See—*
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Fredrikson, Bengt; and Folgero, Kare, to Allmanna Svenska Elektriska Aktiebolaget. Channel type induction furnace. 3,529,069, 9-15-70, Cl. 13-31.

Freeborg, Robert M., to Bechtel International Corporation, mesne. Method of severing a nuclear fuel bundle. 3,514,838, 6-2-70, Cl. 29-426.

Freeborn, George Walter: *See—*
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Freeborn, John C., to Honeywell Inc. Amplifier apparatus. 3,489,955, 1-13-70, Cl. 317-123.

Freeburger, Barron H. Electric light string kit. 3,504,169, 3-31-70, Cl. 240-10.

Freed, Marvin J. Multiple purpose hose nozzle. 3,514,042, 5-26-70, Cl. 239-458.

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Freed, Meier E., to American Home Products Corporation. 1-Keto octahydroquinolizine-4-carboxylic acids. 3,494,929, 2-10-70, Cl. 260-294.

Freed, Meier E., to American Home Products Corporation. N-substituted pyrrolo-pyridine derivatives. 3,497,507, 2-24-70, Cl. 260-247.5

Freed, Meier E., to American Home Products Corporation. Arylsubstituted diazabicycloalkanes. 3,531,485, 9-29-70, Cl. 260-268.

Freed, Meier E.; and Hertz, Eliasbeth, to American Home Products Corporation. 2-Amidino-1,2,3,4-tetrahydropyrazine 1,2 indoles. 3,542,780, 11-24-70, Cl. 260-268.

Freedland, Benjamin P. Electroplating rack. 3,546,090, 12-8-70, Cl. 204-297.

Freedlander, Abraham L.; Matthews, Robert E.; and Garrett, Wayne C., to Dayco Corporation. Mower blade. 3,516,236, 6-23-70, Cl. 56-295.

Freedman Artcraft Engineering Corporation: *See—*
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Freedman, David; and Whitton, William G., to New Brunswick Scientific Co., Inc. Rotary processing apparatus. 3,540,700, 11-17-70, Cl. 259-3.

Freedman, David: *See—*
Liobis, Vytautas A.; and Freedman, David,3,516,170.

Freedman, Gerald. Light analog radiotherapy planning method and apparatus. 3,487,559, 1-6-70, Cl. 35-17.

Freedman, Gordon L., to Freedman Artcraft Engineering Corporation. Modular display fixture. 3,519,320, 7-7-70, Cl. 312-258.

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Freedman, Hyman. Dental floss holder and dispenser. 3,525,462, 8-25-70, Cl. 225-21.

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Freedman, Murray; Vale, Arthur E.; and Vale, Peter R., to La Trique Brassiere Company, Inc. Brassieres. 3,545,445, 12-8-70, Cl. 128-483.

Freedman, Nathan, to Raytheon Company. Constant writing rate vector generator. 3,488,483, 1-6-70, Cl. 235-186.

Freedman, Nathan, to United States of America, Air Force. Bidirectional R.F. amplifier. 3,514,551, 5-26-70, Cl. 179-170.

Freedman, Nathan, to Raytheon Company. Radar transpondor system. 3,546,695, 12-8-70, Cl. 343-6.5

Freedman, Nigel John, to U.S. Philips Corporation. Signal processing utilizing magnetic body whose properties are influenced by light waves. 3,535,660, 10-20-70, Cl. 333-30.

Freedman, Robert N., to Endura Appliance Corporation. Liquid discharge apparatus. 3,495,587, 2-17-70, Cl. 128-66.

Freedman, Ruth. Bust form. 3,514,792, 6-2-70, Cl. 3-36.

Freedman, Ruth. Brassiere pocket for bust form. 3,517,671, 6-30-70, Cl. 128-478.

Freedy, Allan L.: *See—*
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Freedy, Allan L., to Caterpillar Tractor Company. Kickout control for bucket loaders. 3,522,897, 8-4-70, Cl. 214-764.

Freeh, Edward J.: *See—*
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Freehauf, Eugene G., to General Dynamics Corporation. Electrode dressing tool. 3,497,932, 3-3-70, Cl. 29-78.

Freehauf, Eugene G., to General Dynamics Corporation. Method of fabricating electrode dressing tool. 3,525,276, 8-25-70, Cl. 76-101.

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Freeland, John W. Oil base drilling fluid. 3,533,941, 10-13-70, Cl. 252-8.5

Freeland, Royden R. Stirrer for microwave ovens. 3,505,491, 4-7-70, Cl. 219-10.55

Freeman, Alan Twemlow, to Associated Electrical Industries Limited. Electric circuit breakers. 3,546,641, 12-8-70, Cl. 335-16.

Freeman, Alfred B., to Chicago Musical Instrument Co. Dynamic keying circuit for musical instrument. 3,526,702, 9-1-70, Cl. 84-1.26

Freeman, Alfred B., to Chicago Musical Instrument Co. Automatic rhythm system with selectable plural musical arrangements. 3,548,065, 12-15-70, Cl. 84-1.03

Freeman, Alfred B. Plural mode automatic bass note system for musical chords with automatic rhythm device. 3,548,066, 12-15-70, Cl. 84-1.03

Freeman, Alfred. Conveyor chain link. 3,496,784, 2-24-70, Cl. 74-250.

Freeman, Alfred. Pneumatic information-transfer system. 3,514,614, 5-26-70, Cl. 250-219.

Freeman, Alfred. Conveyor system. 3,547,714, 12-15-70, Cl. 198-38.

Freeman, Ardee H.; Schulte, Harold F.; and Davidson, Hubert, to Wheelabrator Corporation, The. Method and means for continuous surface treatment. 3,517,465, 6-30-70, Cl. 51-319.

Freeman, Chester, Jr.: *See—*
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Freeman, Claude C.: *See—*
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Freeman, Clifford L.; and Edwards, William R., to United States of America, Navy. Sonobuoy dispenser. 3,529,745, 9-22-70, Cl. 221-90.

Freeman, Dennis B.: *See—*
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Van Blerkom, Richard; Freeman, Don G.; and Ward, Richard J.,3,521,042.

Freeman, Donald C., Jr., to Union Carbide Corporation. Method for producing a superconducting coating resistant to thermal growth. 3,523,822, 8-11-70, Cl. 117-227.

Freeman, Frank George, to Lucas, Joseph, (Industries) Limited. Radial piston pumps. 3,516,334, 6-23-70, Cl. 91-475.

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Freeman, George S. P.; Jackson, Franklin D.; and Weber, Joseph J., to General Electrodynamics Corporation. Indium seal. 3,543,383, 12-1-70, Cl. 29-470.1

Freeman, Harlan G.; Baxter, Gene F.; and Allan, George Graham, to Weyerhaeuser Company. Method of making a fast-curing adhesive and a method of bonding members utilizing said adhesives. 3,518,159, 6-30-70, Cl. 161-258.

Freeman, Harlan G.: *See—*
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Freeman, Harvey L.; and Truemper, John P., to Eaton Yale & Towne, Inc. Hoist load brake. 3,493,087, 2-3-70, Cl. 192-16.

Freeman, Holland H.: *See—*
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Freeman, Howard I.: *See—*
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Freeman, James H.; Traynor, Edward J.; and Ruffing, Charles R., to Westinghouse Electric Corporation. Methods for making flat electrical cables. 3,511,728, 5-12-70, Cl. 156-52.

Freeman, James L., Jr.: *See—*
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Freeman, Jerry H., to Phone-Ducs, Inc. Conduit sections. 3,545,493, 12-8-70, Cl. 138-115.

Freeman, Jesse H., Jr. Multiple hopper vehicle. 3,498,486, 3-3-70, Cl. 214-501.

Freeman, John W. Houseboat having improved wall opening. 3,487,483, 1-6-70, Cl. 9-1.

Freeman, Marshall E.: *See—*
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Freeman, Mathew L., to Rockwell Manufacturing Company. Ball valves. 3,490,734, 1-20-70, Cl. 251-175.

Freeman, Mathew L., to Rockwell Manufacturing Company. Ball valve. 3,501,127, 3-17-70, Cl. 251-175.

Freeman, Mathew L.: *See—*
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Freeman, Maurice Frederick, to East, H. G., & Company, Limited. Respiratory apparatus. 3,515,163, 6-2-70, Cl. 137-102.

Freeman, Norman Dale: *See—*
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Freeman, Norman L., Jr.; and Frazier, Bruce J., to Halliburton Company. Fluidizing conveyor apparatus. 3,525,498, 8-25-70, Cl. 251-176.

Freeman, Percy F. Bale shredder and discharger. 3,530,912, 9-29-70, Cl. 146-70.1

Freeman, Peter A., to Martin-Marietta Corporation. Pill-type fluidic devices utilizing magnetic memory and restraining means. 3,500,853, 3-17-70, Cl. 137-112.

Freeman, Peter A.; and Bean, Robert A., to Bowles Engineering Corporation. Liquid level controller employing vortex valve. 3,545,468, 12-8-70, Cl. 137-81.5

Freeman, Peter Frank Hilary: *See—*
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Freeman, Raymond T., to Norton Company. Measuring device for engaging abrasive surfaces. 3,494,041, 2-10-70, Cl. 33-172.

Freeman, Raymond, to Varian Associates. Gyromagnetic resonance spectrometer employing a temperature dependent resonance line to sense temperature of the sample. 3,502,964, 3-24-70, Cl. 324-0.5

Freeman, Raymond; and Siebert, William, Jr., to Varian Associates. Frequency control means for gyromagnetic resonance apparatus. 3,551,793, 12-29-70, Cl. 324-0.5

Freeman, Wilbern M. Shallow water breathing apparatus with air pump. 3,525,335, 8-25-70, Cl. 128-145.

Freeman, William A. Pickup and waveforming circuitry for electronic musical instrument. 3,544,694, 12-1-70, Cl. 84-1.11

Freeman, William L., to Thiokol Chemical Corporation. Cable severing by electro-thermal means. 3,538,288, 11-3-70, Cl. 219-68.

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Freemantle, Arthur John. Apparatus for mounting articles on a display card. 3,506,525, 4-14-70, Cl. 156-561.

Freemantle, Arthur John; Jones, Jack; and Courtfields, Reynsham, to E S & A Robinson Limited. Carton forming and filling machine. 3,533,207, 10-13-70, Cl. 53-3.

Freeny, Stanley L., to Bell Telephone Laboratories, Incorporated. System for setting the slope of a data signal to zero at the sampling instants without modifying the data signal values. 3,550,021, 12-22-70, Cl. 328-151.

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Freier, Gerald H., to V-M Corporation. Record players. 3,510,137, 5-5-70, Cl. 274-9.

Freier, Gerald H., to V-M Corporation. Record player having key operated controls. 3,534,967, 10-20-70, Cl. 274-10.

Freifeld, Milton; and Mills, George S., to GAF Corporation. Method of sealing a walled system with polyvinyl pyrrolidone polymer. 3,504,746, 4-7-70, Cl. 166-295.

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Freiman, Charles V.; and Homan, Merle E., to International Business Machines Corporation. Parallel addition and division of two numbers by a fixed division. 3,541,317, 11-17-70, Cl. 235-164.

Freimanis, August. Cleaning apparatus. 3,495,287, 2-17-70, Cl. 15-21.

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Freise, William G.; and Przybyszewski, Benjamin M., to Paymax Syrup Corporation, mesne. Beverage dispensing device. 3,521,791, 7-28-70, Cl. 222-64.

Freitag, Otto W., to Ford Motor Company. High speed cutter for machining soft plastic material. 3,540,315, 11-17-70, Cl. 76-107.

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Frejaville, Gerard; and Jullien, Jean, to Etablissement Public: Centre National de la Recherche Scientifique. Preparation of deuterized compounds. 3,510,519, 5-5-70, Cl. 260-583.

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French, Arthur W., to General Dynamics Corporation. Automatic tuning system responsive to passband skirts. 3,550,009, 12-22-70, Cl. 325-363.

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French, Eddie C., to Continental Oil Company. Electrochemical reduction of benzene using a carbon anode. 3,488,266, 1-6-70, Cl. 204-59.

French, Eddie C., to Continental Oil Company. Preparation of diols and hydroxy ethers. 3,526,581, 9-1-70, Cl. 204-77.

French, Eddie C.; and Hurd, Ray M., to Continental Oil Company. Electrochemical reduction of ketones to pinacols. 3,497,430, 2-24-70, Cl. 204-77.

French, Eddie C.; and Starks, Charles M., to Continental Oil Company. Electrochemical reduction of benzene. 3,493,477, 2-3-70, Cl. 204-59.

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French, Herman B. Routing template jig. 3,540,130, 11-17-70, Cl. 33-174.

French, Hollis Edward, to Itek Corporation. Electro-optic apparatus and method for modifying contrast in photographic images. 3,521,954, 7-28-70, Cl. 355-80.

French, James C.; Howells, John D.; and Anderson, Lucia E., to Parke, Davis & Company. Erythromycin process. 3,551,294, 12-29-70, Cl. 195-96.

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Fresard, Marcel, to Mefina S.A. Thread take-up lever for a sewing machine. 3,545,392, 12-8-70, Cl. 112-241.

Fresard, Marcel; and Jemenez, Antonio, to Mefina S.A. Device for pivoting the motor of a sewing machine. 3,492,958, 2-3-70, Cl. 112-220.

Fresch, Walter C.; Thompson, Blair C.; Beers, Leroy W.; and Murtaugh, James L., Jr., to Burroughs Corporation. High speed modular data processing system. 3,492,654, 1-27-70, Cl. 340-172.5

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Frey, Albert J.; Houlihan, William J.; and Manning, Robert E., to Sandoz-Wander, Inc. 3-(2-Aminoalkyl)-2-hydroxy-3-phenylindolines. 3,551,450, 12-29-70, Cl. 260-326.11
Frey, Albert J.; and Manning, Robert E., to Sandoz Inc. 1-p-Chlorophenyl-3-imino-2-methyl-2,3,5,6,7,8-hexahydroimidazo(1,5-a)pyridine and intermediates therefor. 3,494,925, 2-10-70, Cl. 260-293.
Frey, Albert J.; and Manning, Robert E., to Sandoz Inc. 1,2-Disubstituted-3-oxo and 3-thioxo-2,3,5,6,7,8-hexahydroimidazo(1,5-a)pyridines and intermediates therefor. 3,494,926, 2-10-70, Cl. 260-293.4
Frey, Albert J.; and Manning, Robert E., to Sandoz Inc. 3-Loweralkylthio imidazopyridines. 3,494,927, 2-10-70, Cl. 260-293.4
Frey, Albert J.; and Manning, Robert E., to Sandoz Inc. 1-Substituted-3-oxo(or thioxo)hexahydro-imidazo (1,5a)pyridines. 3,494,928, 2-10-70, Cl. 260-293.4
Frey, Albert J.; and Manning, Robert E., to Sandoz Inc. 1-Substituted-3-imino- tetrahydro-oxazolo(3,4-a)pyridines. 3,494,931, 2-10-70, Cl. 260-294.7
Frey, Albert J.; and Manning, Robert E., to Sandoz-Wander, Inc.1-Substituted-3-substituted imino-1,5,6,7,8,8 α- hexahydro-3H-thiazolo[3,4-α]pyridines and intermediates therefor. 3,505,340, 4-7-70, Cl. 260-293.4
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Frey, Allan H., to United States of America, Navy, mesne. Coaxial electrode recording system. 3,540,434, 11-17-70, Cl. 128-2.1
Frey, Christian M., to United Aircraft Corporation. Self actuating nozzle plug. 3,495,408, 2-17-70, Cl. 60-250.
Frey, Egon, to Daimler-Benz Aktiengesellschaft. Electric installation for the actuating switches of electrically operated windows in motor vehicles. 3,551,687, 12-29-70, Cl. 307-10.
Frey, Frederick W., Jr.; and Carley, David R. Metal plating particulated substrates. 3,549,412, 12-22-70, Cl. 117-100.
Frey, Hubert: *See—*
Herzog, Hermann; and Frey, Hubert,3,506,505.
Frey, John A.: *See—*
Everling, Walter O.; and Frey, John A.,3,506,040.
Frey, Karl, to Sulzer Brothers Limited. Process for manufacturing pipe bends from cast metallic material and a pipebend. 3,550,253, 12-29-70, Cl. 29-471.1
Frey, Paul H.: *See—*
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Frey, Peter J. Counterflow jet flap helicopter. 3,547,377, 12-15-70, Cl. 244-17.25
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Toth, Istvan; and Frey, Walter,3,515,729.
Frey, Wiederkehr & Cie AG: *See—*
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Freyer, Jurgen: *See—*
Steinack, Karl; Ehrich, Robert; Zorner, Walter; and Freyer, Jurgen,3,525,575.
Freyermuth, Harlan B., to GAF Corporation. Sodium 3-(2-benzothiazolyl)-4- hydroxybenzenesulfonates and analogues thereof. 3,491,106, 1-20-70, Cl. 260-304.
Freyermuth, Harlan B.; and Mayhew, Raymond L., to GAF Corporation. Inhibiting cellulose fiber yellowing in alkaline processing at elevated temperatures through utilization of boron salts. 3,498,736, 3-3-70, Cl. 8-54.2
Freyermuth, Harlan B.; and Randall, David I., to GAF Corporation. Reactive phthalocyanine dyestuffs. 3,509,138, 4-28-70, Cl. 260-242.
Freyermuth, Harlan B.; and Randall, David I., to GAF Corporation. Two step reaction of textile fibers with 2-vinylsulfonylethanol. 3,512,916, 5-19-70, Cl. 8-17.
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Goodman, William D.; Ashcraft, Robert M.; Shelby, Frank S.; and Freyermuth, Harlan B.,3,509,217.
Randall, David I.; and Freyermuth, Harlan B.,3,497,527.
Freyhold, Helmut V., to Henkel & Cie, GmbH. Paints containing zinc dust, alkali silicates and organic nitro compounds. 3,505,086, 4-7-70, Cl. 106-1.
Freyhold, Helmut V.; and Wehle, Volker, to Henkel & Cie GmbH. Bonding agents based on alkali metal silicates. 3,505,262, 4-7-70, Cl. 260-29.2
Freyn, Fritz, to List, Hans. Air-cooled internal combustion engine with sound- proofed sheathing. 3,521,726, 7-28-70, Cl. 181-33.
Freyn, Fritz, to List, Hans. Soundproof internal combustion engines. 3,530,840, 9-29-70, Cl. 123-41.7
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Freytag, Helmut; Dane, Ivo; Muller, Erwin; and Fromandi, Guido, to Farbenfabriken Bayer Aktiengesellschaft. Process for increasing the bond strength between rubber and textiles. 3,507,689, 4-21-70, Cl. 117-138.8
Freytag, Helmut; Dane, Ivo; Muller, Erwin; and Fromandi, Guido, to Farbenfabriken Bayer Aktiengesellschaft. Bond strength between rubber and textiles. 3,518,155, 6-30-70, Cl. 161-92.
Freytag, Karl-Heinz; Taube, Carl; Seidel, Bernhard; and Bockly, Erich, to Agfa-Gevaert Aktiengesellschaft. Photographic material for the silver-dye-bleach process. 3,537,857, 11-3-70, Cl. 96-99.
Freytag, Karl-Heinz: *See—*
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Freytag, Norman A., to Budd Company, The. Wire feed control for an automatic welding system. 3,509,314, 4-28-70, Cl. 219-131.
Freytag, Richard W.; and Gratian, Joseph W., to United States of America, Army, mesne. Sintered-film ferroelectric memory line. 3,496,553, 2-17-70, Cl. 340-173.2
Freze, Daniel; and Bone, Aubra N. Drapery and fur cleaning machine. 3,504,510, 4-7-70, Cl. 68-18.
Frezza, Robert, to Samcoe Holding Corporation. Dryer for fabrics and the like. 3,496,647, 2-24-70, Cl. 34-115.
Frezzolini, James A., to Ogden Technology Laboratories, Inc., mesne. Battery analyzer and discharge device including means for comparing the battery potential with a reference potential. 3,546,576, 12-8-70, Cl. 324-29.5
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Frick, David F., to Singer Company, The. Pulse responsive counters. 3,515,341, 6-2-70, Cl. 235-92.
Frick, Hans-Dieter; Knapp, Walter; and Osegowitsch, Victor, to Agfa-Gevaert Aktiengesellschaft. Control arrangement for a regenerator unit in a continuous developer. 3,515,311, 6-2-70, Cl. 222-57.
Frick, John G., Jr.: *See—*
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Frick, Richard H., to Kimberly-Clark Corporation. Papermaking machine. 3,519,263, 7-7-70, Cl. 270-40.
Frick, Wilhelm Ernst; and Schetty, Guido, to Geigy Chemical Corporation, mesne. Certain dibenzo-1,2-thiazines as insecticides and acaricides. 3,549,753, 12-22-70, Cl. 424-246.
Frick, Wilhelm Ernst; Weiss, Anton G.; Wenger, Thomas; and Traber, Walter, to Geigy Chemical Corporation. Benzimidazole compositions and methods of use. 3,506,767, 4-14-70, Cl. 424-273.
Fricke, Arthur L.: *See—*
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Fricke, Louis H., Jr.; and Walsh, Robert A., to Monsanto Company. Rapid process simulator. 3,505,512, 4-7-70, Cl. 235-184.
Fricke, William C., to Sanders Associates, Inc. Radiation power indicator. 3,508,056, 4-21-70, Cl. 250-83.3
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Friconneau, Claude; and Leboutet, Alain, to Commissariat a l'Energie Atomique. Storage of electrodes for the measurement of pH values. 3,546,087, 12-8-70, Cl. 204-195.
Friconneau, Claude; Leboutet, Alain; and Lepeintre, Marcel, to Commissariat a l'Energie Atomique. Electrodes for the measurement of PH values under pressure. 3,551,315, 12-29-70, Cl. 204-195.
Fridan Tool & Machine, Inc.: *See—*
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Fridley, Robert B., to University of California, The Regents of the. Hedgerow picking machine. 3,537,236, 11-3-70, Cl. 53-391.
Fridley, Robert B.; Shawver, Bruce M.; and Holekamp, Emmett R., deceased (by Holekamp, Eloise B.: legal representative and sole heir), to University of California, The Regents of the. Tree shaker suspension. 3,545,190, 12-8-70, Cl. 56-328.
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Fried, John H., to Syntex Corporation. [3-Keto-5-enyl steroid] palladium complexes. 3,492,293, 1-27-70, Cl. 260-239.55
Fried, John H., to Syntex Corporation. Non-steroid hormonal agents. 3,506,653, 4-14-70, Cl. 260-240.
Fried, John H., to Syntex Corporation. Benzylidene derivatives of chromene, thiochromene, quinoline, and N-alkylquinoline and corresponding benzyl tertiary carbinol intermediates. 3,506,654, 4-14-70, Cl. 260-240.
Fried, John H., to Syntex Corporation. Phenylcyclopropyl carbinols and process for their preparation. 3,506,682, 4-14-70, Cl. 260-326.5
Fried, John H., to Syntex Corporation. Novel phosphonium halides. 3,524,886, 8-18-70, Cl. 260-606.5
Fried, John H., to Syntex Corporation. Hormonal diphenyl methylol and benzhydrylidene derivatives. 3,525,751, 8-25-70, Cl. 260-327.
Fried, John H., to Syntex Corporation. Bicyclo [5.1.0] octane derivatives. 3,534,060, 10-13-70, Cl. 260-326.5
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Friedlander, Herbert N.; and Menikheim, Virginia C., to Monsanto Company. Surface modified nylon fibers produced by photocatalyzed halogenation. 3,549,306, 12-22-70, Cl. 8-115.5

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Friend, Harvey H., to United States of America, Army. Combined extractor and ejector mechanism for automatic grenade launcher. 3,538,635, 11-10-70, Cl. 42-10.

Friend, Joseph J., to Bell Telephone Laboratories, Incorporated. Multifrequency tone detector. 3,537,001, 10-27-70, Cl. 324-78.

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Friese, Andre; and Nagel, Artur, to Siemens Aktiengesellschaft. Telephone exchange system with facility for short identification code dialing. 3,524,941, 8-18-70, Cl. 179-18.

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Frieser, Rudolf G.; and Casey, James J., to Sprague Electric Company. Method of producing silicon body. 3,490,961, 1-20-70, Cl. 148-175.

Friesner, Charles E., to Inmont Corporation. Method for producing coated fabric sheet material having a predetermined contour. 3,505,443, 4-7-70, Cl. 264-92.

Frieze, Allan Stewart, to Becton, Dickinson and Company. Hypodermic syringe. 3,524,445, 8-18-70, Cl. 128-218.

Frigger, Heinz, to Teves, Alfred, Maschinen- und Armaturenfabrik KG. Hydraulically and mechanically actuated disk brakes. 3,543,285, 11-24-70, Cl. 188-106.

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Frilette, Vincent J.; and Rubin, Mae K., to Mobil Oil Corporation. Disproportionation of aromatic hydrocarbons. 3,506,731, 4-14-70, Cl. 260-672.

Frilette, Vincent J.; and Weisz, Paul B., to Mobil Oil Corporation. Crystalline aluminosilicates. 3,508,867, 4-28-70, Cl. 23-111.

Frilette, Vincent J.; and Weisz, Paul B., to Mobil Oil Corporation. Catalytic conversion. 3,529,033, 9-15-70, Cl. 260-682.

Frill, Richard K., to Westinghouse Air Brake Company. Variable load relay valve device. 3,504,698, 4-7-70, Cl. 137-495.

Frill, Richard K., to Westinghouse Air Brake Company. Variable load brake control apparatus. 3,536,364, 10-27-70, Cl. 303-22.

Frill, Richard K.; and Reiss, John R., to Westinghouse Air Brake Company. Draft apparatus with tension-breakable emergency release means. 3,515,288, 6-2-70, Cl. 213-64.

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Frink, Russell E., to Westinghouse Electric Corporation. Fluid-blast circuit interrupter with improved electromagnetic driving means and lost motion means. 3,524,957, 8-18-70, Cl. 200-148.

Frink, Russell E., to Westinghouse Electric Corporation. Fluid-blast circuit interrupters having electromagnetic piston-driving means. 3,524,958, 8-18-70, Cl. 200-148.

Frink, Russell E., to Westinghouse Electric Corporation. Fluid-blast circuit interrupter with arc transfer to energize electro-magnetic pumping means. 3,524,959, 8-18-70, Cl. 200-148.

Frink, Russell E., to Westinghouse Electric Corporation. Electric switch having improved blade construction. 3,544,742, 12-1-70, Cl. 200-48.

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Frisch, Kurt C.; and Reegen, Sidney L., to Wyandotte Chemicals Corporation. Electrolytic deposition of urethane films onto metal or other conductive surfaces. 3,488,272, 1-6-70, Cl. 204-181.

Frisch, Paul P., to Allen Industries, Inc. Rotary processing apparatus. 3,490,753, 1-20-70, Cl. 263-7.

Frischknecht, Hans, to Chemetron Corporation, mesne. Method for desealing integral fuel tanks. 3,501,348, 3-17-70, Cl. 134-22.

Frischman, Arnold. Collapsible goal structure with mesh net. 3,501,150, 3-17-70, Cl. 273-127.

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Frishman, Daniel, to Reid-Meredith, Inc. Method of removing frizziness from modacrylic filaments and imparting curl thereto. 3,523,541, 8-11-70, Cl. 132-5.

Frishman, Daniel; and Hart, Robert A., to Reid-Meredith, Inc. Artificial hair piece. 3,509,889, 5-5-70, Cl. 132-53.

Frishman, Daniel; and Horan, Timothy J., to Reid-Meredith, Inc. Process for setting and retaining style in wigs. 3,521,645, 7-28-70, Cl. 132-5.

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Fritsch, Werner; Haede, Werner; Radscheit, Kurt; and Stache, Ulrich, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. 15β-Halogeno-14β-hydroxy-card-20(22)- enolides and process for their manufacture. 3,510,478, 5-5-70, Cl. 260-239.57

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Fritz, Karl. Resonance chamber structure including vacuum tube electrode components. 3,488,555, 1-6-70, Cl. 315-39.

Fritz, Karl. Microwave electrodes for medical therapy. 3,527,227, 9-8-70, Cl. 128-410.

Fritz, Lothar. Electromagnetic load lifting device. 3,521,209, 7-21-70, Cl. 335-291.

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Fritz, William Baird; Sanders, Neil Harrison; Reyner, Emerson Marshall, II; and Fox, Harry Alvin, Jr., to AMP Incorporated. Monolithic multiaperture core device. 3,506,973, 4-14-70, Cl. 340-174.

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Froede, Walter, to NSU Motorenwerke Aktiengesellschaft, and Wankel GmbH. Rotary piston engine with spark and exhaust temperature control. 3,534,717, 10-20-70, Cl. 123-8.05

Froedge, Lanis A., to Kaydee Metal Products Corporation. Base connection for a pedestal. 3,499,625, 3-10-70, Cl. 248-188.7

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Frohberger, Paul-Ernst; and Wiegand, Christian, to Farbenfabriken Bayer Aktiengesellschaft. Fungicidal composition. 3,546,813, 12-15-70, Cl. 47-57.6

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Frohlich, Alfons, to Opti-Holding A.G. Slide fastener with woven support tape. 3,487,511, 1-6-70, Cl. 24-205.1

Frohlich, Alfons, to Opti-Holding A.G., Firma. Slide fastener and manufacture thereof. 3,490,098, 1-20-70, Cl. 18-13.

Frohlich, Alfons, to Opti-Holding A.G. Slide fastener. 3,490,108, 1-20-70, Cl. 24-205.1

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Frohlich, Alfons, to Opti-Holding AG. Slide-fastener assembly. 3,505,710, 4-14-70, Cl. 24-205.11

Frohlich, Alfons, to Opti-Holding AG. Circular slider for slide fastener. 3,522,639, 8-4-70, Cl. 24-205.15

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Froome, Keith Davy; and Bradsell, Robert Howard, to National Research Development Corporation. Distance measuring apparatus which compensates for ambient atmospheric refractive index. 3,521,956, 7-28-70, Cl. 356-5.

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Frowein, Egbertus A., to Smit Nijmegen Electrotechnische Fabrieken N.V. Divisible laminated magnetic core structures for transformers or choke coils of great power. 3,546,645, 12-8-70, Cl. 336-60.

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Frumerman, Robert, to Dravo Corporation. Method and apparatus for the analysis of off-gases in a refining process. 3,520,657, 7-14-70, Cl. 23-230.

Frump, John A., to Commercial Solvents Corporation. Preparation of copolymers of vinyl chloride and oxazolines. 3,518,239, 6-30-70, Cl. 260-87.5

Frump, John A.: *See—*
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Frundl, Ronald J.; Hanson, Victor W.; Jamison, Robert M.; and Arnold, Orlan M., to Ajem Laboratories, Inc. Afterburner system for cupola furnace. 3,545,918, 12-8-70, Cl. 23-2.

Frungel, Frank. Circuit arrangement for liquid pressure forming sheet metal. 3,520,162, 7-14-70, Cl. 72-56.

Frungel, Frank. Discharge lamp arrangement for lighting purposes. 3,529,208, 9-15-70, Cl. 315-110.

Frungel, Frank, to Impulsphysik GmbH. Light receiver housing having inclined mirror mounted on tiltable shaft. 3,544,797, 12-1-70, Cl. 250-216.

Frus, Larry D.; and Lindgren, John C., to Stoddy Company. Metal build-up system. 3,514,568, 5-26-70, Cl. 219-76.

Fruth, Franz: *See—*
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Fruth, Hal F., deceased (by Schmunk, Edwin W., executor); and Mitchell, Carl J. Applicator. 3,535,822, 10-27-70, Cl. 47-1.5

Fruzzetti, Charles V.: *See—*
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Fry, Charles E., Jr.: *See—*
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Fry, David Philip, to BP Chemicals (U.K.) Limited. Molding compositions containing unsaturated and saturated polyesters resins, thermoplastic polymers, monomeric material and filler. 3,489,707, 1-13-70, Cl. 260-31.6

Fry, Horace P., Jr., to FMC Corporation. Method and apparatus for coating films. 3,499,786, 3-10-70, Cl. 117-111.

Fry, Jeremy J., to Rotork Engineering Company Limited. Control units more particularly for the electrical circuits of valve actuators. 3,504,555, 4-7-70, Cl. 74-89.15

Fry, Warren C.; and Kilbourn, Eugene L., to Westinghouse Electric Corporation. Battery charging circuit. 3,543,127, 11-24-70, Cl. 320-39.

Fry, William G.: *See—*
Kelly, Vincent J.; and Fry, William G.,3,524,746.

Fry, William Lawrence, to Lucas, Joseph, (Industries) Limited. Contact breaker assemblies. 3,499,128, 3-3-70, Cl. 200-19.

Fry, William Lawrence, to Lucas, Joseph, (Industries) Limited. Ignition distributors. 3,509,294, 4-28-70, Cl. 200-22.

Fry, William Lawrence, to Lucas, Joseph, (Industries) Limited. Contact breaker assemblies. 3,515,833, 6-2-70, Cl. 200-166.

Fry, William Lawrence, to Lucas, Joseph, (Industries) Limited. Contact breaker assemblies. 3,515,834, 6-2-70, Cl. 200-166.

Fryberger, David: *See—*
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Fryc, Oldrich, to Bell & Howell Company. Reel assembly with centrifugal clutch. 3,522,917, 8-4-70, Cl. 242-197.

Frydenlund, Arthur J. Quick adjusting bow sight. 3,487,548, 1-6-70, Cl. 33-46.

Frydenlund, Arthur J. Arrow holder and release signal device for a bow. 3,499,414, 3-10-70, Cl. 116-67.

Frydman, Emanuel, to Telephone Manufacturing Company Limited. Polarized mercury-wetted reed-relay. 3,522,563, 8-4-70, Cl. 335-153.

Frydman, Emanuel, to Telephone Manufacturing Company Limited. Adjustable polarized reed relay. 3,531,743, 9-29-70, Cl. 335-153.

Frydmann, Eduard, to Chr. Eisele Maschinenfabrik. Braking device for the load-controlled braking of a driven, rotating component. 3,512,440, 5-19-70, Cl. 83-491.

Frye, Cecil L., to Dow Corning Corporation. Quaternary phosphonium silicon complexes. 3,518,292, 6-30-70, Cl. 260-448.8

Frye, George J., to Tektronix, Inc. Triggering method and apparatus wherein the triggering period is determined. 3,524,993, 8-18-70, Cl. 307-228.

Frye, Harold E.: *See—*
Botjer, John L.; Donner, Edward O.; Frye, Harold E.; and Keeler, Howard S.,3,497,613.

Frye, Harold E., to International Business Machines Corporation. Division of negative dividend expressed in two's complement form. 3,492,468, 127-70, Cl. 235-164.

Frye, John S.; and Fuss, James B. Radially deformable fastening member. 3,499,358, 3-10-70, Cl. 85-1.

Frye, Richard L.: *See—*
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Frye, Richard L., to Texaco Inc. Preparation of a grease additive concentrate containing a water-soluble inorganic compound. 3,488,721, 1-6-70, Cl. 252-21.

Fryer, Rodney Ian: *See—*
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Brust, Bernard; Fryer, Rodney Ian; and Sternbach, Leo Henryk,3,539,560.
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Fryer, Rodney Ian; and Senkowski, Bernard Zigmund, to Hoffmann-La Roche Inc. Colorimetric method for determining iron in fluids. 3,506,403, 4-14-70, Cl. 23-230.

Fryer, Rodney Ian; and Sternbach, Leo Henryk, to Hoffmann-La Roche Inc. Certain 1,3,4,5-tetrahydro-2H-1,4-benzodiazepin-2-ones. 3,501,474, 3-17-70, Cl. 260-239.3

Fryer, Rodney Ian; Sternbach, Leo Henryk; and Earley, James Valentine, to Hoffmann-La Roche Inc. 5-(2,6-Disubstituted phenyl)-1,4- benzodiazepines and methods for their preparation. 3,523,939, 8-11-70, Cl. 260-239.

Fryer, Rodney Ian; Sternbach, Leo Henryk; and Farley, James Valentine, to Hoffmann-La Roche Inc. 3-Carbonyl amino acetic acid ethyl ester substituted benzodiazepines. 3,520,877, 7-21-70, Cl. 260-239.3

Fryklund, Per, to Allmanna Svenska Elektriska Aktiebolaget. Valve for high pressure operable in continuous control. 3,495,802, 2-17-70, Cl. 251-5.

Frymaster Corporation, The: *See—*
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Fuchs, Boris, to Winkler Fallert & Co. AG. Automatic coupling for the plate cylinder drive of a rotary press. 3,528,262, 9-15-70, Cl. 64-1.

Fuchs, Francis Joseph, Jr.: *See—*
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Fuchs, Francis Joseph, Jr., to Western Electric Company, Incorporated. Shaping and forming articles. 3,487,668, 1-6-70, Cl. 72-55.

Fuchs, Francis Joseph, Jr., to Western Electric Company, Incorporated. Methods of deep drawing solid plastic materials. 3,495,433, 2-17-70, Cl. 72-347.

Fuchs, Francis Joseph, Jr., to Western Electric Company, Incorporated. Methods of simultaneously cutting portions of a member having differing resistances to cutting action. 3,495,486, 2-17-70, Cl. 83-53.

Fuchs, Francis Joseph, Jr., to Western Electric Company, Incorporated. Methods of deep drawing solid plastic material. 3,509,785, 5-5-70, Cl. 72-60.

Fuchs, Francis Joseph, Jr., to Western Electric Company, Incorporation. Fluid assisted hole punching. 3,522,749, 8-4-70, Cl. 83-22.

Fuchs, Francis Joseph, Jr., to Western Electric Company, Incorporated. Collapsible feed mechanism. 3,548,625, 12-22-70, Cl. 72-272.

Fuchs, Friedrich: *See—*
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Fuchs, Gerhard H.; and Watson, William E., to Allied Chemical Corporation. Manufacture of oxalic acid. 3,536,754, 10-27-70, Cl. 260-528.

Fuchs, Hermann; Meininger, Fritz; Osterloh, Fritz; and Schiessler, Siegfried, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Water-soluble 2:1-chromium complex monoazo dyestuffs containing ethionylamino or vinyl sulfonamido groups. 3,526,617, 9-1-70, Cl. 260-145.

Fuchs, Jerry C. Rotating piston chamber engine. 3,527,262, 9-8-70, Cl. 123-8.43

Fuchs, Julius J., to Du Pont de Nemours, E. I., and Company. N,N-dichloroamines and their preparation. 3,530,162, 9-22-70, Cl. 260-464.

Fuchs, Otto; Sieber, Heinrich; and Landler, Josef, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process for preparing vat dyestuffs. 3,547,924, 12-15-70, Cl. 260-274.

Fuchs, Otto; and Troster, Helmut, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Nitro benzothioxanthene dicarboxylic acid imide. 3,502,678, 3-24-70, Cl. 260-281.

Fuchs, Richard C.; and Haeselich, Willi K. E., to Oster, John, Manufacturing Co. Hair dryer. 3,503,138, 3-31-70, Cl. 34-99.

Fuchs, Robert Joseph; Lutz, Charles William; and Cohen, Leon Erwin, to FMC Corporation. Metal oxide-phosphoric acid coatings. 3,547,670, 12-15-70, Cl. 106-286.

Fuchs, Walter; Runge, Erich; Belart, Juan; and Schrader, Gert, to Teves, Alfred, G.m.b.H. Wheel-brake cylinder or the like. 3,545,344, 12-8-70, Cl. 92-165.

Fuchs, Warren, to Treadwell Corporation, The. Method of removing carbon dioxide and water vapor from air. 3,511,595, 5-12-70, Cl. 23-4.

Fuchsman, Charles H., to Ferro Corporation. Method of producing a ferrous sintered article. 3,512,964, 5-19-70, Cl. 75-201.

Fuchsman, Charles H.; and Brown, James C., to Ferro Corporation. Dialkyltin salt of aromatic carboxylic acids useful as catalysts in producing urethanes and polyurethanes. 3,509,104, 4-28-70, Cl. 260-77.5

Fuchu, Tokio; Kanamori, Ko; Akiyama, Takeyoshi; and Murakami, Mataji, to Japan Monopoly Corporation, The, and Kabushiki Kaisha Murakami Seisakusho. Cut tobacco feeder. 3,532,099, 10-6-70, Cl. 131-109.

Fuchu, Tokio; Kanamori, Ko; Akiyama, Takeyoshi; and Murakami, Mataji, to Japan Monopoly Corporation, The, and Kabushiki Kaisha Murakami Seisakusho. Pneumatic cut tobacco feeding apparatus. 3,544,167, 12-1-70, Cl. 302-13.

Fudala, Chester S.: *See—*
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Fudim, Efrem Vladimirovich, to Institute Avtomatiki I Telemekhaniki. Pulsating linear pneumatic resistance element. 3,491,944, 1-27-70, Cl. 235-200.

Fueg, Heinz; Matsuya, Koichi; and Haberthur, Kurt. Process for continuous manufacture of hydroxyl ammonium sulfate solution. 3,489,511, 1-13-70, Cl. 23-117.

Fuel Injection Engineering Company: *See—*
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Fuelberth, Walter K.: *See—*
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Fuelster, Ralph C.; Hardie, Robert C.; and Pelkola, Clifford G., to Nordberg Manufacturing Company. Governor controlled emergency braking system. 3,497,039, 2-24-70, Cl. 188-180.

Fuentes, Gabriel, Jr. Method of pile splicing and driving. 3,504,501, 4-7-70, Cl. 61-53.15

Fuentes, Gabriel, Jr. Piling construction. 3,522,707, 8-4-70, Cl. 61-56.

Fuentes, Gabriel, Jr. Pile driving apparatus. 3,543,869, 12-1-70, Cl. 173-86.

Fuerle, Richard D. Self-cooling container. 3,520,148, 7-14-70, Cl. 62-294.

Fuerle, Richard D. Sailboat centerboard. 3,538,879, 11-10-70, Cl. 114-132.

Fuerst, Bernard: *See—*
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Fuerst, Herbert. Dental vibrator for scaling teeth. 3,526,962, 9-8-70, Cl. 32-50.

Fuerst, Milton J., to Kimberly-Clark Corporation. Doctor blade mechanism. 3,507,745, 4-21-70, Cl. 162-281.

Fuerst, William R., to Eaton Yale & Towne, Inc. Beverage dispensing system. 3,503,540, 3-31-70, Cl. 222-129.1

Fuerst, William R., to Eaton Yale & Towne, Inc. Mounting manifold for dispenser valves. 3,540,476, 11-17-70, Cl. 137-606.

Fuhlhage, Donald W., to Thompson-Hayward Chemical Company. Method of controlling pestiferous organisms. 3,539,688, 11-10-70, Cl. 424-263.

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Fuhr, Hans. Method of welding writing materials, thermoplastics foil for welding the writing materials and apparatus for carrying out the method, employing the thermoplastics foil. 3,518,143, 6-30-70, Cl. 156-212.

Fuhr, Herbert: *See—*
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Fuhr, Karl; Nentwig, Joachim; Rudolph, Hans; and Romatowski, Johannes, to Farbenfabriken Bayer Aktiengesellschaft. Process for dyeing articles produced from aromatic polycarbonates. 3,532,454, 10-6-70, Cl. 8-4.

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Fuhring, Heinrich; and Sieber, Johannes Helmut, to Bowe, Bohler & Weber KG. Drycleaning machine with adsorber. 3,538,615, 11-10-70, Cl. 34-74.

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Fuhrmann, Ernst; Teucher, Siegfried; Bondroit, Fritz; Stecher, Friedhelm; and Vossieck, Paul, to Goetzewerke Friedrich Goetze A.G. Sealing arrangement. 3,519,278, 7-7-70, Cl. 277-153.

Fuhrmann, Hans. Absorption tester having beam splitter and wheatstone bridge with potentiometer balancing. 3,518,439, 6-30-70, Cl. 250-218.

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Fuhrmann, John, Sr., deceased0 (by Fuhrmann, John, Jr.; executor). Hand guided walk-behind self-propelled material conveying cart. 3,525,099, 8-18-70, Cl. 298-2.

Fuhrmann, Robert: *See—*
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Gabano, Jean-Paul, to Societe des Accumulateurs Fixes et de Traction (Societe Anonyme). Electrochemical generator with non-aqueous electrolyte. 3,542,601, 11-24-70, Cl. 136-155.

Gabano, Jean-Paul, to Societe des Accumulateurs Fixes et de Traction (Societe Anonyme). Method of preparing non-aqueous electrolytes particularly for primary generators, the electrolytes resulting from said method and primary generators containing the said electrolytes. 3,542,602, 11-24-70, Cl. 136-155.

Gabano, Jean-Paul; and Gerbier, Gerard Marcel, to Societe des Accumulateurs Fixes et de Traction (Societe Anonyme). Electrochemical generator utilizing a lithium anode, copper sulfide cathode and non-aqueous electrolytes. 3,511,716, 5-12-70, Cl. 136-100.

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Gabler, Hellmut; Merkenich, Karl; Schwalm, Kurt; and Grun, Gustav, to Knapsack Aktiengesellschaft. Process for the manufacture of detergent compositions. 3,538,004, 11-3-70, Cl. 252-99.

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Gabor, Andrew, to Potter Instrument Company, Inc. Aerodynamic transducer displaced with respect to the center of tape wrap. 3,512,145, 5-12-70, Cl. 340-174.1

Gabor, Andrew, to Honeywell Inc. Detection of double transition recording. 3,518,554, 6-30-70, Cl. 328-63.

Gabor, Andrew, to Potter Instrument Company, Inc. Tape drive with means to intermittently connect vacuum to two loop boxes. 3,518,649, 6-30-70, Cl. 340-174.1

Gabor, Andrew, to Potter Instrument Company, Inc. Whippletree linkage utilized to position a transducer. 3,546,685, 12-8-70, Cl. 340-174.1

Gabor, Andrew; Poumakis, Eleuthere; and Altonji, John A., to Potter Instrument Company, Inc. Magnetic storage system with automatic lateral loading of a cartridge containing an endless tape. 3,522,594, 8-4-70, Cl. 340-174.1

Gabor, Charles D., to Dresser Industries, Inc. Shaft kiln discharge system. 3,507,480, 4-21-70, Cl. 263-29.

Gabor, Dennis, to Columbia Broadcasting System, Inc. Photo-electronic imaging apparatus. 3,509,276, 4-28-70, Cl. 178-6.8

Gabor, Dennis, to Columbia Broadcasting System, Inc. Holographic pictures. 3,545,836, 12-8-70, Cl. 350-3.5

Gabor, Dennis; Bauer, Benjamin B.; and Gorman, Frank B., to Columbia Broadcasting System, Inc. Sonar system employing holographic techniques to produce a picture of an object field. 3,506,952, 4-14-70, Cl. 340-3.

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Gabriel, Henry, to Phillips Petroleum Company. Cigarette filters containing selective adsorbents. 3,545,456, 12-8-70, Cl. 131-266.

Gabriel, Malcolm Edward, to International Standard Electric Corporation. Encoder having an analog input signal centering arrangement. 3,495,238, 2-10-70, Cl. 340-348.

Gabriel, Malcolm Edward, to International Standard Electric Corporation. Bipolar analog to digital encoder utilizing two comparators. 3,544,993, 12-1-70, Cl. 340-347.

Gabriel, Thomas M.; and Sturgill, Charles G., to Mallory, P. R., & Co., Inc. Non-polar solid electrolyte tantalum capacitor. 3,491,270, 1-20-70, Cl. 317-230.

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Gabriet, Jean Paul, to Giravions Dorand. Stabilizing device for light beam in optical simulators. 3,522,993, 8-4-70, Cl. 356-248.

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Gadd, Edward, to Victoreen Leece Neville, Inc. R.F. transient suppression for generating machine. 3,538,422, 11-3-70, Cl. 322-58.

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Gaddes, Edward D. Solid-state ionizing ignition system. 3,504,230, 3-31-70, Cl. 315-209.

Gaddini, Norman E. Freestone peach pitting and halving machine. 3,548,900, 12-22-70, Cl. 146-28.

Gadekar, Shreekrishna Manmohan; Johnson, Bernard Dean; and Cohen, Elliott, to American Cyanamid Company. Substituted 2,4,5,6-tetrahydropyrrolo [3,4-c]pyrazoles. 3,526,633, 9-1-70, Cl. 260-295.

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Gaeddert, Melvin V.; and Jordan, David J., to Hesston Corporation, Inc. Rotor having randomly spaced folding tines. 3,511,362, 5-12-70, Cl. 198-211.

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Gaeth, Rudolf H., to Phillips Petroleum Company. Process for production of polymers with controlled saturation. 3,525,729, 8-25-70, Cl. 260-94.3

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Gallagher, Dudley M., to United States of America, Agriculture. Phosphorylation of cotton with inorganic phosphates. 3,488,140, 1-6-70, Cl. 8-116.

Gallagher, Francis B.; and Feazel, Charles E., to Allied Chemical Corporation. Light activated internal sizing of paper. 3,519,533, 7-7-70, Cl. 162-179.

Gallagher, George Arthur; and Walter, Henry Clement, to Du Pont de Nemours, E. I., and Company. Adhesive bonding of α-olefin hydrocarbon copolymers. 3,502,603, 3-24-70, Cl. 260-29.3

Gallagher, Gerald L.: *See—*
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Wenzel, Philip D.; and Gallagher, Gerald L.,3,543,864.

Gallagher, James P.; and Rausch, Maurice K., to Sinclair Research, Inc. Two-stage catalytic hydrogen processing of a lube oil. 3,494,854, 2-10-70, Cl. 208-59.

Gallagher, John P. Tobacco pouch. 3,536,189, 10-27-70, Cl. 206-41.

Gallagher, Joseph T. Automatic control system for book sewing machine. 3,492,955, 2-3-70, Cl. 112-21.

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Gallagher, Richard J. Compression spring. 3,515,382, 6-2-70, Cl. 267-1.

Gallagher, Richard J.; Christensen, Richard J.; and Dougall, Gordon M., to Foundry Allied Industries, Inc. Polyurethane mold articles. 3,550,673, 12-29-70, Cl. 164-228.

Gallagher, Robert C.; and Williams, David W., to Westinghouse Electric Corporation. Integrated semiconductor and PN junction capacitor. 3,544,862, 12-1-70, Cl. 317-235.

Gallagher, Ronald Bartholomew: *See—*
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Gallagher, Thomas, to Motorola, Inc. Multi-frequency receiver with automatic channel selection and priority channel monitoring. 3,497,813, 2-24-70, Cl. 325-456.

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Galland, Daniel; Perrin, Jacques; Santier, Christian; Servoz-Gavin, Pierre; and Soutif, Michel, to Commissariat a l'Energie Atomique. Electron paramagnetic resonance spectrometer for nuclear reactors. 3,551,792, 12-29-70, Cl. 324-0.5

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Gallant, James O.; and Knapp, George P., to Mount Hope Machine Company, Incorporated. Fluid bearing roll with vibration damping means. 3,521,340, 7-21-70, Cl. 29-116.

Gallant, James O.; Knapp, George P.; and Depuy, Francis A., to Mount Hope Machine Company, Incorporated. Roll with vibration damping means. 3,516,135, 6-23-70, Cl. 29-116.

Gallant, Robert L., to General Electric Company. Vulcanizing system. 3,497,913, 3-3-70, Cl. 18-6.

Gallant, William, to Metered Hydraulics Ltd. Variable stroke control device for remote hydraulic piston and cylinder assemblies. 3,525,212, 8-25-70, Cl. 60-54.5

Gallaro, Anthony V.; Kazuk, Walter F.; and Speigel, Kenneth, to Sylvania Electric Products, Inc. Process of forming a cathodoluminescent screen. 3,526,527, 9-1-70, Cl. 117-33.5

Gallatin, Albert F. Eyelet feeding device. 3,521,735, 7-28-70, Cl. 198-33.

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Margot, Alfred; and Gallay, Jean-Jacques,3,528,985.

Gallay, Pierre-Henri, to Mecaplast S. A. Blow extrusion apparatus. 3,516,118, 6-23-70, Cl. 18-5.

Gallay, Pierre-Henri, to Mecaplast S.A. Machine for the extrusion, blowing, filling and sealing of thermoplastic material bottles. 3,523,329, 8-11-70, Cl. 18-5.

Gallay, Pierre-Henri, to Mecaplast S.A. Apparatus for blow-extrusion and filling hollow bodies. 3,523,330, 8-11-70, Cl. 18-5.

Gallay, Pierre-Henri, to Maceplast S.A. Method for blow extrusion. 3,548,044, 12-15-70, Cl. 264-89.

Galle, Edward M., to Hughes Tool Company. Passageway extension for drilling tools. 3,509,952, 5-5-70, Cl. 175-339.

Galle, Edward M., to Hughes Tool Company. Well stimulation method. 3,520,362, 7-14-70, Cl. 166-249.

Gallegos, Sam C. Refrigerator door hinge. 3,507,074, 4-21-70, Cl. 49-386.

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Gallivan, James E., to United Aircraft Corporation. Method of welding with a high energy beam. 3,518,400, 6-30-70, Cl. 219-121.

Gallmeier, Richard Arthur, to General Electric Company. System for sequentially connecting a coil-transforming power supply to one of a plurality of inductive devices. 3,535,541, 10-20-70, Cl. 307-38.

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Gallo, Charles F.; and Leiga, Algird O., to Xerox Corporation. Method of increasing the efficiency of corona charging. 3,517,995, 6-30-70, Cl. 355-17.

Gallo, George T. Urinary tract irrigator. 3,513,846, 5-26-70, Cl. 128-234.

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Gallo, Louis J. Automobile door safety lock. 3,543,546, 12-1-70, Cl. 70-264.

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Gallo, Sabino; Marseille, Jacques; and Morin, Bernard, to Commissariat a l'Energie Atomique. Leak-tight support for rotary seal plug. 3,533,530, 10-13-70, Cl. 220-46.

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Galloway, Dudley L., to Westinghouse Electric Corporation. Voltage detector for shielded conductor providing substantially constant output voltage over wide range of input voltage. 3,538,440, 11-3-70, Cl. 324-133.

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Gallucci, Francis, to United States Steel Corporation. Guide-roll arrangement for continuous casting. 3,550,674, 12-29-70, Cl. 164-282.

Gallucci, Francis, to United States Steel Corporation. Pinch roll assembly for a continuous-casting machine. 3,550,676, 12-29-70, Cl. 164-282.

Gallucci, Francis; and Hofmann, Gottfried, to United States Steel Corporation. Descaling apparatus. 3,511,250, 5-12-70, Cl. 134-122.

Gallup, Bruce B.Surveyor's pin. 3,507,081, 4-21-70, Cl. 52-103.

Galmiche, Philippe; Hivert, Andre R.; and Marty, Michel, to Office National d'Etudes et de Recherches Aerospatiales. Refractory alloys containing a dispersed phase of thoria and in processes for their production. 3,515,523, 6-2-70, Cl. 29-182.5

Galockin, Longin; Glazewski, Walter A.; and Sitkowski, Eugene R., to Stone Container Corporation. Machine for assembling sifter top packages. 3,538,583, 11-10-70, Cl. 29-208.

Galonska, David A.; and Smith, Lowell F., to General Motors Corporation. Ball deflector for ball screw and nut devices. 3,529,486, 9-22-70, Cl. 74-459.

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Gamberini, Ernesto. Automatic device for handling capsular bodies. 3,534,873, 10-20-70, Cl. 214-8.5

Gamberini, Goffredo. American Machine & Foundry Company Method and means for forming from and securing to thin wrapper webs a reinforced tear strip. 3,551,245, 12-29-70, Cl. 156-260.

Gamberini, Gofredo, to American Machine & Foundry Company. Cigarette parcelling machine. 3,527,366, 9-8-70, Cl. 214-6.

Gambill, Charles C., to General Motors Corporation. Freezer warning system. 3,512,148, 5-12-70, Cl. 340-228.

Gambill, Russell T., to United States of America, Army. Missile system with pure fluid guidance and control. 3,502,285, 3-24-70, Cl. 244-3.22

Gambill, Ulysses T.; and Thomas, William R., to Owens-Corning Fiberglas Corporation. Method of producing a composite wall panel. 3,507,730, 4-21-70, Cl. 156-214.

Gambin, Paul, to Societe Anonyme Gambin S.A. Tracer device for copying machine-tools. 3,541,924, 11-24-70, Cl. 90-62.

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Gandelman, Morris D., to Jacoby-Bender, Inc. Extendible buckle for securing the ends of a bracelet and the like. 3,550,216, 12-29-70, Cl. 24-71.

Gander, Karl Friedrich; and Becker, Ewald Georg, to Lever Brothers Company. Process for preparing margarine, etc.. 3,488,199, 1-6-70, Cl. 99-122.

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Gander, Robert Johns, to Johnson & Johnson. Water-soluble acrylate polymers having skin adhering qualities. 3,547,950, 12-15-70, Cl. 260-33.2

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Gange, Robert A., to RCA Corporation. Memory system with defective storage locations. 3,541,525, 11-17-70, Cl. 340-172.5

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Gannaway, Edwin L., to Copeland Refrigeration Corporation. Compressor valving assembly. 3,509,907, 5-5-70, Cl. 137-512.

Gannoe, Thomas Earl, to Sylvania Electric Products, Inc. Apparatus for making electrical contacts from strip stock. 3,509,307, 4-28-70, Cl. 219-79.

Gannoe, Thomas Earl, to Sylvania Electric Products, Inc. Plating of stripes on longitudinal electrically conductive material. 3,539,490, 11-10-70, Cl. 204-207.

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Gant, Lawrence A. Suspension device. 3,528,679, 9-15-70, Cl. 280-124.

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Ganter, Wolfgang, to Messrs. Gebruder Junghans Gesellschaft mit beschrankter Haftung. Control circuit for the drive of a movement- regulating oscillator for a timekeeping instrument. 3,541,777, 11-24-70, Cl. 58-23.

Ganter, Wolfgang; and Assmus, Friedrich, to Messrs. Gebruder Junghans Gesellschaft mit beschrankter Haftung. Tuning fork devices. 3,503,202, 3-31-70, Cl. 58-23.

Ganter, Wolfgang; and Assmuss, Friedrich. Tuning fork device. 3,529,414, 9-22-70, Cl. 58-23.

Ganter, Wolfgang; and Dinger, Horst, to Messrs Gebruder Junghans Gesellschaft mit beschrankter Haftung. Balance construction, 3,528,239, 9-15-70, Cl. 58-28.

Gantick, Noel A., to Collins Radio Company. Broadband multilevel phase modulation system employing digitally controlled signal reflection means. 3,506,930, 4-14-70, Cl. 332-16.

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Ganz, Dietrich, to Vacuumschmelze G.m.b.H. Process for reduction of core losses in cube textured iron-silicon alloys. 3,513,039, 5-19-70, Cl. 148-111.

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Ganz, Robert H., to Continental Can Company, Inc. Package forming machine. 3,550,754, 12-29-70, Cl. 198-164.

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Garber, John D.; Ide, Gordon M.; and Meigs, Frederick M., to Merck & Co., Inc. Polyureas prepared from diisacyanates of carboxylic acid esters. 3,488,324, 1-6-70, Cl. 260-77.5

Garber, Richard D. Hip joint protective appliance. 3,526,221, 9-1-70, Cl. 128-95.

Garber, Thomas; and Kelleher, William L., to Hewlett-Packard Company. Transducer modulation apparatus with transducer operating at other than output frequency. 3,491,299, 1-20-70, Cl. 325-153.

Garber, Thomas; and Kelleher, William L., to Hewlett-Packard Company. Transducer for measuring force and displacement. 3,498,114, 3-3-70, Cl. 73-67.2

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Garcia, George E. Ski-bob with rear ski runner forwardly suspended. 3,526,412, 9-1-70, Cl. 280-16.

Garcia, George E. Low pressure pneumatic tire transmitter. 3,533,063, 10-6-70, Cl. 340-58.

Garcia, Joaquin Morales, to La Espana Industrial, S.A. Isotactic polypropylene bandages. 3,551,557, 12-29-70, Cl. 424-28.

Garcia Vidal, Daniel Ildefonso. Mechanism for converting the oscillatory rectilinear movement of a prime mover into circular movement. 3,546,952, 12-15-70, Cl. 74-40.

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Gard, Gary Lee; Woolf, Cyril; and Shaw, Ruth Martha, to Allied Chemical Corporation. Method and apparatus for using dielectric insulating compositions containing pentafluorothio- substituted polyfluorooxetanes. 3,519,725, 7-7-70, Cl. 174-17.

Gard, Gary L.; and Pierce, Arleen C., to Allied Chemical Corporation. Hypofluorite bactericide. 3,539,690, 11-10-70, Cl. 424-298.

Gard, Gary L.; Woolf, Cyril; and Shaw, Ruth M., to Allied Chemical Corporation. Gaseous dielectric comprising CF_3-$CFSF_5$. 3,506,774, 4-14-70, Cl. 174-17.

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Gard, George E., to Armstrong Cork Company. Shaped charge blending method and product. 3,507,940, 4-21-70, Cl. 264-71.

Gard, George E.; and Boak, William K., to Armstrong Cork Company. Blending method and apparatus. 3,507,946, 4-21-70, Cl. 264-122.

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Garde, Lawrence, to Control Data Corporation. Surge current control. 3,512,047, 5-12-70, Cl. 317-33.

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Gardel, Robert; and Gorsky, Egon, to Lettam, Inc. Sounding mechanism for toy figures. 3,504,455, 4-7-70, Cl. 46-117.

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Gardenhour, Eugene C., to Grove Manufacturing Company. Controls for outrigger assemblies of mobile cranes and the like. 3,550,506, 12-29-70, Cl. 91-414.

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Gardiner, Irwin J.; and Hall, Daniel N., to Esso Research and Engineering Company. Three-component polythioethers. 3,522,221, 7-28-70, Cl. 260-79.7

Gardiner, Peter, to Barrier Corporation, The. Process for coating a metal surface. 3,514,312, 5-26-70, Cl. 117-49.

Gardiner, William P. Magnetic switch. 3,529,269, 9-15-70, Cl. 335-207.

Gardner, Arthur E., to Minister of National Defense, in Her Majesty's Canadian Government. Process for desensitizing solid explosive particles by coating with wax. 3,544,360, 12-1-70, Cl. 117-100.

Gardner, Charles L., Jr.; Klein, Walter F.; and Yount, William R., to International Business Machines Corporation. Magnetic information transfer apparatus. 3,536,855, 10-27-70, Cl. 179-100.2

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Gardner, Harris L. Flexible weight. 3,490,766, 1-20-70, Cl. 272-57.

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Gardner, Jack H.; and Rizzo, Sam, to Johnson & Johnson. Wound release dressing. 3,528,417, 9-15-70, Cl. 128-156.

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Gardner, Newell J.; and Lastinger, William R. Door latch post retractor. 3,536,349, 10-27-70, Cl. 292-340.

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Garetto, Giuseppe; and Canciani, Clemente, to Rhodiatoce S.p.A. Method of and apparatus for the continuous precipitation of cellulose alkylate esters. 3,493,992, 2-10-70, Cl. 18-1.

Garfield, Eugene E., to Institute for Scientific Information. Character recognition selective copying and reproducing apparatus. 3,512,129, 5-12-70, Cl. 340-146.3

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Garland, Bernard, to General Electric Company Limited, The. Transistor FSK switching circuits. 3,506,784, 4-14-70, Cl. 178-66.

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Garner, Kenneth B.; and Ives, Robert G., to Combustion Engineering, Inc. Method for forming openings in tubular welded wall panels. 3,537,290, 11-3-70, Cl. 72-324.

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Garrett, Burton R. Apparatus for arranging and conveying bottles and the like. 3,487,908, 1-6-70, Cl. 198-30.

Garrett, Burton R. Apparatus for arranging and conveying bottles and the like. 3,538,991, 11-10-70, Cl. 198-34.

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Garrett, Henry U., to Brown Oil Tools, Inc., Mesne. Perforator. 3,530,948, 9-29-70, Cl. 175-4.51

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Garrett, James K., to United States of America, Army, mesne. Thermal sensing pressure switch. 3,514,734, 5-26-70, Cl. 337-320.

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Garrett, Sheyrl W., to Combustion Engineering Inc. Electric circuit for transmission of power and information by common lines. 3,500,132, 3-10-70, Cl. 317-123.

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Garrison, Glenn D., to Jarecki Corporation. Toggle-action press. 3,524,405, 8-18-70, Cl. 100-257.

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Garrison, James G. Trap for minnow bucket or the like. 3,541,722, 11-24-70, Cl. 43-66.

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Gartner, Albert J., to Kal-Pac Engineering Ltd. Exhaust antifreeze structure for pneumatically powered apparatus. 3,509,917, 5-5-70, Cl. 138-32.

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Gartside, Roger H., to Pannier Corporation, The. Rotary printer with printing cylinder drive wheels. 3,529,545, 9-22-70, Cl. 101-219.

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Gatewood, Morris S. Incinerator. 3,508,505, 4-28-70, Cl. 110-8.

Gatewood, Sidney U., to Borg-Warner Corporation. Clutch with spring retainers. 3,489,255, 1-13-70, Cl. 192-89.

Gathman, Albert, to Esso Research and Engineering Company. Oil impregnated papers. 3,535,155, 10-20-70, Cl. 117-154.

Gatien, Paul G. Valve-type percussion drill bit. 3,490,551, 1-20-70, Cl. 175-318.

Gatien, Paul Henri. Load bearing pile. 3,487,646, 1-6-70, Cl. 61-53.

Gating, Jurgen: *See—*
Erxleben, Ewald; and Gating, Jurgen,3,496,255.

Gatiss, John William; and Joyce, William John, to English Electric Company, Limited, The. Protective switching devices for capacitors with movable contacts within arcing electrodes and exhaust valve means. 3,492,452, 1-27-70, Cl. 200-148.

Gatland, Lawrence O., to Sterling Drug Inc. Aerosol clam shell dispenser. 3,549,055, 12-22-70, Cl. 222-182.

Gatlin, James A., to United States of America, National Aeronautics and Space Administration. Cartwheel satellite synchronization system. 3,534,925, 10-20-70, Cl. 244-1.

Gatlin, William E. Multistage energy-converting device. 3,498,184, 3-3-70, Cl. 91-87.

Gatsis, John G., to Universal Oil Products Company. Hydrodesulfurization of asphaltene- containing black oil. 3,501,396, 3-17-70, Cl. 208-216.

Gatsis, John G., to Universal Oil Products Company. Coal liquefaction process. 3,503,863, 3-31-70, Cl. 208-8.

Gatsis, John G., to Universal Oil Products Company. Solvent extraction method. 3,520,794, 7-14-70, Cl. 208-8.

Gatsis, John G., to Universal Oil Products Company. Catalytic conversion of hydrocarbon mixtures containing asphaltenes. 3,530,062, 9-22-70, Cl. 208-89.

Gatta, Giorgio: *See—*
Benetta, Gianni; Bresquar, Valerio; Gatta, Giorgio; and Testa, Francesco,3,546,193.

Gatti, Arno; and Cree, Robert Franklin, to General Electric Company. Process for producing α-alumina whiskers. 3,505,014, 4-7-70, Cl. 23-142.

Gatti, Giancarlo, to Olivetti-General Electric S.p.A. Card stacking device. 3,514,101, 5-26-70, Cl. 271-86.

Gattner, Gunther E.; and Widdel, Karl-Heinz, to Siemens Aktiengesellschaft. Method of forwarding information from a high speed data processing system to a slower operating data processing system. 3,548,380, 12-15-70, Cl. 340-172.5

Gatto, Charles, to Morris, Philip, Incorporated. Method for forming plastic tubing. 3,538,210, 11-3-70, Cl. 264-90.

Gatto, David M.; and Cox, Kenneth E., to Dow Chemical Company, The. Automatic pressure adjustor. 3,508,883, 4-28-70, Cl. 23-290.

Gatton, Robert P.; and Toth, Steven J., to Streater Industries, Inc. Air return grille for an air curtain type refrigerated display case. 3,543,532, 12-1-70, Cl. 62-256.

Gatton, Robert P.; and Toth, Steven, to Streater Industries, Inc. Plug buttons for vertically adjustable shelf assemblies. 3,532,212, 10-6-70, Cl. 206-56.

Gatton, Robert P.: *See—*
Tavallali, Cyrus; Gatton, Robert P.; and Toth, Steven J.,3,532,404.

Gatzi, Karl: *See—*
Bader, Jorg; and Gatzi, Karl,3,527,867.
Bader, Jorg; and Gatzi, Karl,3,546,235.

Gatzi, Karl, to Geigy, J. R., A.G. Certain aminoalkylamino substituted azacycloalkenes. 3,518,251, 6-30-70, Cl. 260-239.

Gatzi, Karl, to Geigy Chemical Corporation. Method of combatting phytopathogenic fungi and compositions therefor. 3,541,211, 11-17-70, Cl. 424-244.
Menasse, Raphael; and Gatzi, Karl,3,507,963.
Model, Ernst; and Gatzi, Karl,3,551,500.

Gau, Christian Henri Jose Marie, to Service d'Exploitation Industrielle des Tabacs et des Allumettes. Box, specifically for matches. 3,550,762, 12-29-70, Cl. 206-20.

Gaubis, Leonard L.: *See—*
Yates, Alan F.; and Gaubis, Leonard L.,3,490,296.

Gauchard, Fernand. Method for sealing fluidtight containers, chiefly coffins constitituted by the assembly of rigid sections. 3,525,132, 8-25-70, Cl. 27-19.

Gauck, Donald A. Sanitation device. 3,521,999, 7-28-70, Cl. 21-61.

Gaudet, Peter W.: *See—*
Bouchard, Andre C.; Gaudet, Peter W.; and Thomas, Martha J. B.,3,544,828.
Bouchard, Andre C.; Gaudet, Peter W.; and Thomas, Martha J. B.,3,547,680.

Gaudfrin, Guy. Apparatus for continuous filtering. 3,540,597, 11-17-70, Cl. 210-331.

Gaudin, Antoine M., to Orca, Inc., mesne. Desalination distillation using barium carnate as descaling agent. 3,525,675, 8-25-70, Cl. 203-7.

Gaudin, Jean, to Societe de Constructions Mecaniques de Creil. Tensioning device for use in winding multiple strips upon a common mandrel. 3,547,332, 12-15-70, Cl. 226-195.

Gaudriot, Henri L.; and Ryan, Le Roy J., Jr. Parts counter. 3,551,593, 12-29-70, Cl. 178-6.

Gaudry, Edouard: *See—*
Gaudry, Paul E.; Gaudry, Edouard; Descarries, Raymond; and Anderson, James,3,508,721.
Gaudry, Paul E.; Gaudry, Edouard; Descarries, Raymond; and Anderson, James,3,533,666.

Gaudry, Paul E.: *See—*
Descarries, Raymond; Gaudry, Paul E.; and Ohlson, Bengt Erik,3,534,317.

Gaudry, Paul E., to Consolidated Foods Corporation, mesne. Apparatus for inserting balls in a ball bearing retainer. 3,533,151, 10-13-70, Cl. 29-201.

Gaudry, Paul E.; Gaudry, Edouard; Descarries, Raymond; and Anderson, James, to Consolidated Foods Corporation, mesne. Cordwinder for a floor care machine. 3,508,721, 4-28-70, Cl. 242-107.6

Gaudry, Paul E.; Gaudry, Edouard; Descarries, Raymond; and Anderson, James, to Consolidated Foods Corporation, mesne. Ball bearing retainer for a cordwinder. 3,533,666, 10-13-70, Cl. 308-201.

Gauger, Edward A., Jr.: *See—*
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Gaugh, Wilbur S.: *See—*
Mee, John D.; Heseltine, Donald W.; and Gaugh, Wilbur S.,3,542,548.

Gaukler, Fritz: *See—*
Kuhnle, Paul; and Gaukler, Fritz,3,530,773.

Gaul, Edward M.; and Steingas, Richard R., to International Harvester Company. Crop harvester having removable crop container. 3,531,004, 9-29-70, Cl. 214-147.

Gauldoni, Robert R. Snubbing means for automotive vehicle. 3,537,715, 11-3-70, Cl. 280-6.

Gaule, Gerhart K.: *See—*
Buser, Rudolf; Gaule, Gerhart K.; and Ross, Raymond L.,3,500,078.

Gault, Frank M. Copper brazing alloy. 3,528,807, 9-15-70, Cl. 75-156.

Gault, John M., to International Rectifier Corporation. Triac structure and method of manufacture. 3,549,961, 12-22-70, Cl. 317-235.

Gaumer, David D.; Hanna, Charles D.; Bailey, Charles E.; and Trickel, Leighton E. Sequence initiated electrical activator. 3,544,804, 12-1-70, Cl. 307-10.

Gaumer, Marvin W., to Perkin-Elmer Corporation, The. Liquid sample dispensing means. 3,501,064, 3-17-70, Cl. 222-358.

Gaumond, Jean Claude. Head mounted tethered target. 3,542,364, 11-24-70, Cl. 272-78.

Gaunt, Wilmer B., Jr., to Bell Telephone Laboratories, Incorporated. Hybridless bilateral transmission circuit. 3,502,823, 3-24-70, Cl. 179-170.

Gaunt, Wilmer B., Jr., to Bell Telephone Laboratories, Incorporated. Transistor phase shift circuit. 3,517,223, 6-23-70, Cl. 307-295.

Gaunt, Wilmer B., Jr., to Bell Telephone Laboratories, Incorporated. Transistor hybrid circuit. 3,530,260, 9-22-70, Cl. 179-170.

Gaunt, Wilmer B., Jr., to Bell Telephone Laboratories, Incorporated. Hybridless signal transfer circuits. 3,540,049, 11-10-70, Cl. 343-180.

Gaunt, Wilmer B., Jr.; and Harms, David A., to Bell Telephone Laboratories, Incorporated. TDM conference control circuit featuring crosstalk reduction by changing the sequence of station interconnections. 3,495,041, 2-10-70, Cl. 179-15.

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Gaus, Frank D.: *See—*
Payne, Dana C.; and Chandler, Jack L., 3,549,575.

Gaus, Jakob: *See—*
Lischer, Georg; and Gaus, Jakob,3,488,785.
Lischer, Georg; and Gaus, Jakob,3,508,459.

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Johnson, Keith O.; and Verrow, Donald J., 3,499,589.
Johnson, Keith O., 3,518,442.
Pooley, Charles K., 3,510,742.

Gaussens, Gilbert, to Commissariat a l'Energie Atomique. Process for the preparation of anhydrous hydrazine. 3,542,659, 11-24-70, Cl. 204-157.1

Gauster, Wolfgang; Muller, Walter; and Weinrotter, Ferdinand, to Osterreichische Stickstoffwerke Aktiengesellschaft. Process for removing fluorine and phosphate from gypsum produced in the manufacture of phosphoric acid. 3,547,581, 12-15-70, Cl. 23-122.

Gaut, Peter S.: *See—*
Schaaf, Siegfried; and Gaut, Peter S.,3,536,780.
Schaaf, Siegfried; and Gaut, Peter S.,3,538,060.

Gautherin, George A., to Lambda Electronics Corporation. Electronic ripple filter. 3,551,780, 12-29-70, Cl. 321-10.

Gauthier, Carl M.: *See—*
Scheffler, Paul H., Jr.; Fox, Leonard J.; Stump, Francis C.; and Gauthier, Carl M.,3,532,445.

Gauthier, Edward V. Flowmeter for liquid fuel engine. 3,529,469, 9-22-70, Cl. 73-113.

Gauthier, Edward; Larson, Robert A.; and LaTendresse, Philip E., to Pettibone Corporation. Tree-trunk slasher. 3,550,653, 12-29-70, Cl. 143-46.

Gauthier, Elie: *See—*
Racine, Roland; and Gauthier, Elie,3,523,626.

Gauthier, William D.; and Pifer, George William, to Champion Spark Plug Company, mesne. Medical shielding structure. 3,537,447, 11-3-70, Cl. 128-139.

Gauthier, William K. Surgical retractor device. 3,522,799, 8-4-70, Cl. 128-20.

Gautier, Pieter A.: *See—*
Radder, Johannes; Gautier, Pieter A.; and Campen, Jan P.,3,536,731.

Gautraud, Michael G.: *See—*
Cornell, William D.; Gautraud, Michael G.; and Gretzky, Anthony J.,3,508,822.

Gautraud, Michael G.; Torresen, Robert; and Grosvenor, Herbert D., to Brunswick Corporation. Pin detection system. 3,506,264, 4-14-70, Cl. 273-43.
Huck, William F.; Wyatt, James B.; Albrecht, Alexander J.; and Gautraud, Michael G.,3,499,648.

Gautreaux, Marcelian F.; and Wikman, Andrew O., to Ethyl Corporation. Process for producing alkyl aluminum compounds. 3,505,375, 47-70, Cl. 260-448.

Gautron, Rene Lucien, to Compagnie de Saint-Gobain. Halogen-5 trimethyl-1,3,3 indoline 2-spiro-3' nitro 8' naphtho(1,2-b) pyrannes. 3,505,352, 4-7-70, Cl. 260-326.11

Gautron, Rene Lucien, to Compagnie de Saint-Gobain. Diapiropyran compounds having photochromic properties. 3,534,092, 10-13-70, Cl. 260-326.11

Gauvin, Gordon: *See—*
Jaffe, Arnold; and Gauvin, Gordon,3,521,803.
Jaffe, Arnold; and Gauvin, Gordon,3,533,144.

Gavaghan, Thomas J., to Pitney-Bowes, Inc. Sheet folding machine. 3,510,122, 5-5-70, Cl. 270-68.

Gavat, Stefan: *See—*
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Gaved, Roy Alfred: *See—*
Dawkins, John Campbell Francis; Gaved, Roy Alfred; and Greig, Alan,3,514,826.

Gaven, Thomas J., to McGraw-Edison Company. Teaching machine. 3,497,966, 3-3-70, Cl. 35-9.

Gaven, Thomas J.: *See—*
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Gavin, David F.: *See—*
Ottmann, Gerhard F.; Kober, Ehrenfried H.; and Gavin, David F.,3,523,962.
Ottmann, Gerhard F.; Kober, Ehrenfried H.; and Gavin, David F.,3,523,966.

Gavin Instruments, Inc.: *See—*
Perkins, John W., 3,543,273.

Gavrilov, Anatoly Mikhailovich: *See—*
Niskovskikh, Vitaly Maximovich; Sadlutsky, Mechislav Ludvigovich; Gelfenbein, Evgeny Jukhimovich; and Gavrilov, Anatoly Mikhailovich,3,523,571.

Gavrun, Michael T., to Curtiss-Wright Corporation. Support member for restartable rocket engines. 3,508,404, 4-28-70, Cl. 60-271.

Gawin, Adolph J.; Porazinski, Robert F.; and Strahan, Daryl J., to Bell & Howell Company. Reader-printer with plastic transport belt. 3,511,564, 5-12-70, Cl. 355-3.

Gawlick, Heinz: *See—*
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Stadler, Hans; Gawlick, Heinz; and Bendler, Hellmut,3,499,386.
Stadler, Hans; Gawlick, Heinz; and Umbach, Hans,3,535,978.

Gawlick, Heinz; and Bendler, Hellmut, to Dynamit Nobel Aktiengesellschaft. Ignitor for explosive charge with means for preventing inadvertent ignition. 3,547,033, 12-15-70, Cl. 102-70.

Gawlick, Heinz; Marondel, Gunther; and Bendler, Hellmut, to Dynamit Nobel Aktiengesellschaft. Smoke signal body. 3,520,275, 7-14-70, Cl. 116-124.

Gawlick, Heinz; and Umbach, Hans, to Dynamit Nobel Aktiengesellschaft. Cartridge. 3,529,548, 9-22-70, Cl. 102-45.

Gawlik, Czeslaw Winceuty; and Simson, Dionizy, to Zaklady Remontu Maszyn Budowlanych Nr 3. Vibrohammer. 3,550,694, 12-29-70, Cl. 173-131.

Gawlik, Paul A., Sr. Self-aligning taps. 3,550,173, 12-29-70, Cl. 10-140.

Gawreluk, Demeter: *See—*
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Gawron, Alex F.; Kaman, Frank A.; and Schrack, Frank C., to Skil Corporation. Power system for portable electric tools including induction-type electric motor with associated solid state frequency generator. 3,530,350, 9-22-70, Cl. 318-227.

Gawron, Alex F.; and Schrack, Frank C., to Skil Corporation. Stator construction including an encapsulated semi-conductor device mounted on the stator. 3,506,898, 4-14-70, Cl. 318-138.

Gawron, Stanley A., to Addressograph-Multigraph Corporation. Automatic toner concentrate detector. 3,487,978, 1-6-70, Cl. 222-1.

Gawron, Stanley A.: *See—*
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Gawronski, Eugene A., to Owens-Illinois, Inc. Apparatus for grinding and polishing glass articles. 3,518,796, 7-7-70, Cl. 51-76.

Gawronski, Eugene A.; and Keith, Eugene L., to Owens-Illinois, Inc. Glass grinding method and apparatus. 3,500,591, 3-17-70, Cl. 51-263.

Gaxiola, Gilbert C. Hair curler including hair supporting and guiding means, and method of using same. 3,507,291, 4-21-70, Cl. 132-7.

Gay, Charles D., to Automatic Electric Laboratories, Inc. Marking circuit for a relay crosspoint network. 3,515,811, 6-2-70, Cl. 179-18.

Gay, Charles Warren; and Hapler, Arthur J., Jr., said Hepler assor. to said Gay. Collator with stapling means and storage means. 3,536,318, 10-27-70, Cl. 270-58.

Gay, Duncan: *See—*
Kerr, John; and Gay, Duncan,3,491,529.

Gay, Errol J.: *See—*
Brenneke, Arthur M.; and Gay, Errol J.,3,540,701.

Gay Freres S.A.: *See—*
Gay, Jean-Pierre, 3,521,331.

Gay, George Thomas, to Reynolds Aluminum Containers (1965) Limited. Cake pan. 3,532,250, 10-6-70, Cl. 220-62.

Gay, Jean-Pierre, to Gay Freres S.A. Clasp for a metallic bracelet. 3,521,331, 7-21-70, Cl. 24-71.

Gay, Lewis L.: *See—*
Kirgis, Jerry B.; Lester, James M.; and Gay, Lewis L.,3,487,971.

Gay, Walter A.; and Sheehan, Desmond, to Techni-Chem Company, The. Process for preparing enol acetates of cyclic ketones. 3,506,706, 4-14-70, Cl. 260-488.

Gay, Walter A.; Sheehan, Desmond; and Vellturo, Anthony F., to Techni-Chem Company, The. Process for preparing enol acetates from ketones. 3,529,014, 9-15-70, Cl. 260-488.

Gay, William E. Apparatus for automatically classifying, washing, sanitizing, and drying soiled dish and hollow ware items. 3,520,726, 7-14-70, Cl. 134-63.

Gaydasch, Alexander, to Universal Oil Products Company. Preparation of N,N'-diaryl-*p*- phenylenediamines. 3,510,518, 5-5-70, Cl. 260-576.

Gaydell, Inc.: *See—*
Crandell, George M.; and Gates, Russell C., Jr., 3,535,770.

Gaydon, Richard Hart. Apparatus for orienting screws and the like. 3,533,534, 10-13-70, Cl. 221-171.

Gaydos, Edward J. Means for clipping work gloves to belt. 3,488,812, 1-13-70, Cl. 24-3.

Gaydou, Francois; and Jenne, Rudolf, to Bendix Corporation, The. Apparatus for the sputtering of materials. 3,516,919, 6-23-70, Cl. 204-298.

Gayla Industries, Inc.: *See—*
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Gayle, Robert: *See—*
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Gaylor, Robert B., Jr., to Sinclair-Koppers Company. Locking mechanism for egg cartons. 3,536,250, 10-27-70, Cl. 229-44.

Gaylor, Robert B., Jr.: *See—*
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Gaylord Associates Inc.: *See—*
Gaylord, Norman G.; and Takahashi, Akio, 3,531,453.

Gaylord Bros., Inc.: *See—*
Hudson, Harold L., 3,540,374.

Gaylord, Eber W.; and Meyer, William K., to Gulf Research & Development Company. Abrasive jet drilling fluid. 3,508,621, 4-28-70, Cl. 175-67.

Gaylord, John A., to Koch, H., & Sons, Inc., a division of Global Systems. Locking lever for canopy release. 3,541,650, 11-24-70, Cl. 24-230.

Gaylord, John A., to Koch, H., & Sons, Inc. Shaft lock for canopy release. 3,541,651, 11-24-70, Cl. 24-230.

Gaylord, John F., Jr., to Medical Specialties, Inc. Cervical traction device. 3,540,439, 11-17-70, Cl. 128-75.

Gaylord, Norman G., to Borg-Warner Corporation, mesne. Novel copolymers and their method of preparation. 3,491,068, 1-20-70, Cl. 260-78.5

Gaylord, Norman G.; and Takahashi, Akio, to Gaylord Associates Inc. Poly (vinyl chloride) of improved thermal stability. 3,531,453, 9-29-70, Cl. 260-92.8

Gaynor, Edwin G., to Gaynor, Edwin S. Two-button two-stage switch. 3,518,381, 6-30-70, Cl. 200-5.

Gaynor, Edwin S.: *See—*
Gaynor, Edwin G., 3,518,381.

Gaynor, Joseph; and Sewell, Gordon J., to General Electric Company. Deformation recording without electrical charging. 3,519,422, 7-7-70, Cl. 96-27.

Gayter, Harry: *See—*
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Guillot, Gerard Noel; Le Bras, Claude Raymond; and Louichon, Marc Georges, 3,492,165.
Roussel, Michel Jean; and Waroux, Maurice Denis, 3,491,583.

Gazagne, Robert, to S.I.C.E.R.-Societe Industrielle et Commerciale d'Etudes et de Realisations. Method and installation for crystallization of sugar. 3,533,838, 10-13-70, Cl. 127-16.

Gazdarica, Cyril. Toy dump wagons. 3,508,789, 4-28-70, Cl. 298-19.

Gaze, Michael J. F., to Texas Instruments, Incorporated. Etch composition and method for chromium. 3,492,179, 1-27-70, Cl. 156-18.

Gazuit, Georges, to NRM Corporation, mesne. Tire vulcanizing apparatus. 3,550,196, 12-29-70, Cl. 18-4.

Gazzard, Edward George; and Greenshields, James Nairn, to Imperial Chemical Industries Limited. Isocyanates. 3,538,121, 11-3-70, Cl. 260-345.8

Gazzard, Edward George; and Greenshields, James Nairn, to Imperial Chemical Industries Limited. Epoxides. 3,544,601, 12-1-70, Cl. 260-345.9

G. B. Tools and Components Exports Limited: *See—*
Parsons, John Desmond, 3,494,477.

GCA Corporation: *See—*
Bedinger, John F., 3,537,306.
Lovering, Howard B., 3,540,831.
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Geach, Charles John; and Groszek, Aleksander Jerzy, to British Petroleum Company Limited, The. Hydrocarbon separation by adsorption on graphite. 3,513,089, 5-19-70, Cl. 208-310.
Geacintov, Cyril: *See—*
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Gealt, Arthur E., to Honeywell Inc. Polarographic cell. 3,510,421, 5-5-70, Cl. 204-195.
Geanangel, Russell A.: *See—*
Shore, Sheldon G.; and Geanangel, Russell A.,3,489,517.
Shore, Sheldon G.; and Geanangel, Russell A.,3,542,527.
Gear, Eli C., to Stromberg Datagraphics Inc., mesne. Liquid film display method and apparatus. 3,538,251, 11-3-70, Cl. 178-7.87
Gearco A/S: *See—*
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Gearhart-Owen Industries, Inc.: *See—*
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Johns, Earl; and Lowrie, Gerald Max, 3,494,186.
Gearin, John M., to Norco, Inc. Cable coupling. 3,530,548, 9-29-70, Cl. 24-123.
Gearing, James Walter, to Derritron Electronic Vibators Limited. Electro-magnetic vibratory suspension. 3,529,188, 9-15-70, Cl. 310-27.
Gearmatic Co., Ltd.: *See—*
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Geary, Carl H., Jr.: *See—*
Murray, Philip A.; and Geary, Carl H., Jr.,3,499,503.
Geary, James Edward, Jr.; Harsch, William Edward; Maxwell, John Murdock; and Rego, Richard Donald, to Du Pont de Nemours, E. I., and Company. Centrifugal casting apparatus for forming a cast wall member extending transversely across an elongated bundle of substantially parallel hollow filaments of a fluid permeation separation apparatus. 3,492,698, 2-3-70, Cl. 18-26.
Geary, James Edward, Jr.; Harsch, William Edward; Maxwell, John Murdock; and Rego, Richard Donald, to Du Pont de Nemours, E. I., and Company. Method of repairing leaks in fluid separation apparatus. 3,499,062, 3-3-70, Cl. 264-36.
Geating, Chester J. Machine for circumferential color coding. 3,509,850, 5-5-70, Cl. 118-221.
Geballe, Theodore H.: *See—*
Corenzwit, Ernest; Geballe, Theodore H.; Longinotti, Louis D.; and Matthias, Bernd T.,3,506,940.
Gebel, Kurt M., to Litton Industries, Inc. Clamp. 3,538,560, 11-10-70, Cl. 24-263.
Gebel, Radames K. H., to United States of America, Air Force. Apparatus for opto-electronic photographic image translation. 3,524,020, 8-11-70, Cl. 178-6.8
Gebel, Radames K. H., to United States of America, Air Force. Analyzer for determining sparial deviations in the spectral response of photosensors. 3,525,571, 8-25-70, Cl. 356-176.
Gebel, Radames K. H., to United States of America, Air Force. Solid state time sequential optical image transducer utilizing frame time quanta collection. 3,536,829, 10-27-70, Cl. 178-7.1
Gebel, Radames K. H.; and Fettis, Henry E., to United States of America, Air Force. Apparatus for obtaining computer input data from unknown curves. 3,518,416, 6-30-70, Cl. 235-197.
Gebert, Frank X.: *See—*
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Gebhard, John Charles, Jr., to Du Pont de Nemours, E. I., and Company. Combination of a plastic sheet member and fastening means for securing said member to a supporting structure. 3,544,416, 12-1-70, Cl. 161-48.
Gebhardt, James J., Jr.: *See—*
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Gebhardt, Joseph J.: *See—*
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Gebhart, Herbert J., Jr.; and Makin, Earle C., Jr., to Monsanto Company. Separation of hydrocarbon by type II hydrate formation. 3,505,211, 4-7-70, Cl. 208-308.
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Gebhart Howard C.: *See—*
Wightman, Lawrance W.; and Gebhart Howard C.,3,527,970.
Gebicki, Zbigniew: *See—*
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George, Edwin Francis, to Imperial Chemical Industries Limited. Plant growth inhibition with 4- hydroxytetrafluoropyridine and derivatives thereof. 3,545,955, 12-8-70, Cl. 71-76.
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Gerhardt, Kunibert H. Vehicle storage apparatus. 3,520,423, 7-14-70, Cl. 214-16.1

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Gidge, Lester. Pressure pad box taping machine and method. 3,505,774, 4-14-70, Cl. 53-14.

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Giegerich, James E., to Certain-Teed Products Corporation. Tab stacking apparatus. 3,547,280, 12-15-70, Cl. 214--006

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Gielkens, Johannes; Vrinssen, Cornelis H.; van de Bosch, Anna M.; and Bos, Harmannus, to Stamicarbon N.V. Preparation of 31-hydroxy-32-alkoxypropionic acids or salts thereof. 3,522,300, 7-28-70, Cl. 260-535.

Gielow, David E.; and Llewellyn, Peter M., to Varian Associates. Ion cyclotron resonance spectrometer employing an optically transparent ion collecting electrode. 3,505,516, 4-7-70, Cl. 250-41.9

Gielow, George F.: *See*—
Edwards, Robert L.; and Gielow, George F.,3,491,772.
Edwards, Robert L.; and Gielow, George F.,3,532,245.

Gielow, George F.; and Edwards, Robert L., to Artnell Company. Vehicle seat. 3,495,872, 2-17-70, Cl. 297-340.

Gierenz, Gerhard: *See*—
Clas, Wilhelm; and Gierenz, Gerhard,3,523,984.

Gies, Helmut, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Water-insoluble monoazo dyestuffs. 3,503,954, 3-31-70, Cl. 260-205.

Gies, Paul E.; Sperl, Gottlieb; and Braaten, Ralph A., to Houdaille Industries, Inc. Rotary vane suspension units for endless track vehicles and the like. 3,521,527, 7-21-70, Cl. 91-1.

Gies, Paul E.; Sperl, Gottlieb; and Braaten, Ralph A., to Houdaille Industries, Inc. Rotary vane suspension units for endless track vehicles and the like. 3,528,114, 9-15-70, Cl. 60-51.

Gies, Paul E.: *See*—
Kamman, Gordon W.; and Gies, Paul E.,3,520,557.

Gies, Robert M., to Shell Oil Company. Consolidating earth formations with saturated silica solution. 3,515,216, 6-2-70, Cl. 166-288.

Giese, Clifford C., Jr.; and Mohler, David B., to Ledex, Inc. Intervalometer with slide transfer switch. 3,496,315, 2-17-70, Cl. 200-18.

Giese, Elroy J., to Tomlinson Industries, Inc. Plug faucet. 3,542,336, 11-24-70, Cl. 251-181.

Giese, Emil E., to Ringspann Albrecht Mauer KG. Retainer ring. 3,543,894, 12-1-70, Cl. 192-45.1

Gieseking, Carl W., to Monsanto Company. Treatment of polyphenyl thioethers with alkali metal hydrides. 3,518,314, 6-30-70, Cl. 260-609.

Gieseking, Carl W., to Monsanto Company. Treatment of polyphenyl thioethers with alkali metals and oxygen gas. 3,532,758, 10-6-70, Cl. 260-609.

Gieseking, Carl W.; Thompson, Quentin E.; and Weiss, Richard W., to Monsanto Company. Functional fluid compositions. 3,490,737, 1-20-70, Cl. 252-25.

Giesler, Erich: *See*—
Lorenz, Ernst; Wodtcke, Freidrich; Ebenhoech, Franz Ludwig; Giesler, Erich; and Kirner, Helmut,3,529,935.

Giesler, Jerry B., to Hoerner Waldorf Corporation. Combination package. 3,495,699, 2-17-70, Cl. 200-45.14

Giessler, Henry H. Mobile home. 3,516,705, 6-23-70, Cl. 296-23.

Giessler, Wolfgang: *See*—
Wolf, Gerhard Dieter; Giessler, Wolfgang; Bentz, Francis; and Nischk, Gunther,3,527,732.

Giffen, James W., to Corning Glass Works. Method of manufacturing nonporous vitreous building tile. 3,528,791, 9-15-70, Cl. 65-67.

Giffen-Burgess Corporation: *See*—
Burgess, Charles D., 3,533,876.

Gifford, John F. Nutating step motor for AC or pulse operation. 3,539,847, 11-10-70, Cl. 310-49.

Gifford, Maurice J.: *See*—
Seiferth, Oscar E.; Austin, Glenn M.; and Gifford, Maurice J.,3,498,018.

Gifford, Oscar D. Power mower clipping-collecting attachment-blower unit therefor. 3,496,977, 2-24-70, Cl. 146-107.

Gifford-Hill-Western, Inc.: *See*—
Johnson, James Burl, Jr.; Lindly, Horace Bishop; and Ogle, William Jackson, 3,539,205.

Gifford-Wood, Inc.: *See*—
Adams, Robert E., 3,513,960.

Gigante, Ernesto Nesofsky. Erecting set. 3,490,822, 1-20-70, Cl. 312-257.

Gigante, Vincenzo. Frame assembly. 3,520,084, 7-14-70, Cl. 49-381.

Gigantino, Leonard D., to Steinen, Wm., Mfg. Co. High pressure nozzle. 3,488,006, 1-6-70, Cl. 239-599.

Gigantino, Leonard D.; and Gigantino, Otto M., to Steinen, Wm., Mfg. Co. Descaling nozzle. 3,510,065, 5-5-70, Cl. 239-590.

Gigantino, Otto M.: *See*—
Gigantino, Leonard D.; and Gigantino, Otto M.,3,510,065.

Gigauri, Vladimir Spiridonovich; Perelmutr, Alexandr Semenovich; Galperin, Jury Shmulevich; and Smolyarov, Boris Vladimirovich. Apparatus for artificial ventilation of lungs. 3,548,821, 12-22-70, Cl. 128-145.6

Giger, Urs, to Eta A.G. Ebauches-Fabrik. Frictional bearing arrangement for the winding weight in a self winding watch. 3,517,500, 6-30-70, Cl. 58-82.

Giger, Urs; and Stamm, Heinrich, to Eta A.G. Ebauches-Fabrik. Latching device for the dial on a watch movement. 3,488,943, 1-13-70, Cl. 58-127.

Giger, Walter, Jr., to General Electric Company. Electric circuit breaker with releasable coupling mechanism. 3,495,198, 2-10-70, Cl. 335-16.

Gigli, Giulio, to Ardis S.p.A. Lead pencil having means adapted to control the drop of the refill lead. 3,523,741, 8-11-70, Cl. 401-94.

Gigliotti, Anthony: *See*—
Wittman, Harold P.; Wenick, Harvey; and Gigliotti, Anthony,3,504,438.

Gigliotti, Dominick; and Smith, Drexel Kermit, to Du Pont de Nemours, E. I., and Company. Filter assembly having tapered housing and inlet tube. 3,536,200, 10-27-70, Cl. 210-345.

Gignac, Stanley E., Jr., to Dow Corning Corporation. Novel room-temperature-curing silicone elastomers and a method for making same. 3,509,081, 4-28-70, Cl. 260-18.

Gignier, Jean P.; Lhonore, Pierre; Quibel, Jacques; and Senes, Michel, to La Societe Chimique de la Grande Paroisse, Azote et Produits Chimiques. Process for reforming hydrocarbons under high pressure. 3,533,766, 10-13-70, Cl. 48-214.

Gignier, Jean P.: *See*—
Senes, Michel; Lhonore, Pierre; Gignier, Jean P.; Guibel, Jacques; and Housset, Jean,3,533,963.

Giguere, Louis Philippe, to Canada Iron Foundries, Limited. Centrifugal pipe casting. 3,522,837, 8-4-70, Cl. 164-299.

Gijutsu Kenkiyu Kumiai Amaike Kenkiyusho: *See*—
Okada, Sadayuki; and Nomura, Seinosuke, 3,505,802.

Gijzenberg, Joost. Device for working the soil, especially for harrowing farmland. 3,499,494, 3-10-70, Cl. 172-53.

Gil-Av, Emanuel; and Feibush, Binyamin, to Yeda Research and Development Co., Ltd. Gas chromatographic resolution of enantiomers bearing an amino group. 3,494,105, 2-10-70, Cl. 55-67.

Gilard, Pierre; and Galanti, Maurice. Method for extracting solid particles from a liquid. 3,549,523, 12-22-70, Cl. 210-24.

Gilardenghi, Biagio, to Fiat Societa per Azioni. Electrical switch having actuating means maintained in uniform engagement with pivotable contact rocker. 3,536,872, 10-27-70, Cl. 200-67.

Gilbert, Alfred R.: *See*—
Bostick, Edgar E.; and Gilbert, Alfred R.,3,507,829.
Cooper, Glenn D.; and Gilbert, Alfred R.,3,496,236.

Gilbert, Anita L.: *See*—
McKnight, Charles Allen; and Gilbert, Anita L.,3,533,411.

Gilbert Associates, Inc.: *See*—
Sommer, Walter C., 3,488,067.

Gilbert, Barrie, to Tektronix, Inc. Resistive conversion device. 3,524,998, 8-18-70, Cl. 307-299.

Gilbert, Barrie, to Tektronix, Inc. Switching circuit including plural ranks of differential circuits. 3,539,831, 11-10-70, Cl. 307-235.

Gilbert, Carl S.; Jones, Jack M.; and Ventura, Robert J., to Teaching Technology Corporation, mesne. Portable study station. 3,538,976, 11-10-70, Cl. 160-130.

Gilbert, Dale H. Automobile luggage rack. 3,515,323, 6-2-70, Cl. 224-42.08

Gilbert, Dixie E., to Phillips Petroleum Company. Adhesive comprising animal glue and a thermoplastic polymer. 3,535,275, 10-20-70, Cl. 260-6.

Gilbert, Dixie E., to Phillips Petroleum Company. Method for forming silicone composition coated polyolefin articles. 3,541,196, 11-17-70, Cl. 264-99.

Gilbert, Dixie E., to Phillips Petroleum Company. Grooved tamping foot for sealing and stretching open end parison. 3,550,200, 12-29-70, Cl. 18-5.

Gilbert, Dixie E.: *See*—
Stapp, Paul R.; and Gilbert, Dixie E.,3,489,601.

Gilbert, Donald E., to Gilbert Electronics, Inc. Traps for flying insects. 3,491,478, 1-27-70, Cl. 43-112.

Gilbert, Edward O., to Reliance Electric Company. Analog computer feedback limiter circuit. 3,514,635, 5-26-70, Cl. 307-237.

Gilbert, Edward O., to Reliance Electric Company. Computer apparatus for multiplying two or more analog quantities and providing a digital output. 3,521,038, 7-21-70, Cl. 235-150.52

Gilbert, Edward O.; and Gilbert, Elmer G., to Applied Dynamics, Inc. Fast-reset integrator circuit. 3,503,049, 3-24-70, Cl. 340-173.

Gilbert, Edward O.; and Howe, Robert M., to Reliance Electric Company. Mode-switchable amplifier stabilized against drift. 3,513,404, 5-19-70, Cl. 330-9.

Gilbert Electronics, Inc.: *See*—
Gilbert, Donald E., 3,491,478.

Gilbert, Elmer G., to Applied Dynamics, Inc. Gating circuit for hybrid computer apparatus. 3,488,478, 1-6-70, Cl. 235-150.5

Gilbert, Elmer G.: *See*—
Gilbert, Edward O.; and Gilbert, Elmer G.,3,503,049.

Gilbert, Eric Davenport: *See*—
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Gilbert, Eric Davenport, to Marconi Company Limited, The. Steerable aerial installations. 3,515,015, 6-2-70, Cl. 74-802.

Gilbert, Everett E.: *See*—
Biritz, Laszlo F.; and Gilbert, Everett E.,3,544,555.
Dear, Robert E. A.; and Gilbert, Everett E.,3,505,459.

Gilbert, Everett E., to Allied Chemical Corporation. Method for controlling unwanted vegetation. 3,490,894, 1-20-70, Cl. 71-122.

Gilbert, Everett E., to Allied Chemical Corporation. Pesticidal aromatic amino derivatives of hexahaloacetones. 3,532,753, 10-6-70, Cl. 260-571.

Gilbert, Everett E.; and Farah, Basil S., to Allied Chemical Corporation. Novel carbinol and derivatives thereof. 3,544,535, 12-1-70, Cl. 260-89.5

Gilbert, Everett E.; and Peterson, James O., to Allied Chemical Corporation. Novel perfluoroalkyl and perfluoroalkoxy thio acids. 3,544,620, 12-1-70, Cl. 260-502.6

Gilbert, Everett E.; and Veldhuis, Benjamin, to Allied Chemical Corporation. Process for combatting insects with bis- (heptafluoroisopropoxymethyl)benzene sulfonates. 3,488,425, 1-6-70, Cl. 424-315.
Farah, Basil S.; Gilbert, Everett E.; and Veldhuis, Benjamin,3,501,522.

Gilbert, Fredrick Walter, to American Machine & Foundry Company. Flash evaporators. 3,488,260, 1-6-70, Cl. 202-172.

Gilbert, George T., to Poor & Company. Rotary impact crusher. 3,516,613, 6-23-70, Cl. 241-186.

Gilbert, Harry. Tire temperature alarm system. 3,510,835, 5-5-70, Cl. 340-57.

Gilbert, Herman Spencer, to Dow Chemical Company, The. Dry cleaning method. 3,505,005, 4-7-70, Cl. 8-142.

Gilbert, Jack J., to Spyro-Dynamics Corporation. Infinitely variable, positive drive speed changer which can also act as a reverser. 3,537,334, 11-3-70, Cl. 74-675.

Gilbert, John F.: *See*—
Bramley, Anthony; and Gilbert, John F.,3,501,366.

Gilbert, John Harold, to Monsanto Chemicals Limited. Process for the production of a foamed polyethylene layflat tube. 3,488,746, 1-6-70, Cl. 264-53.

Gilbert, John M.: *See*—
Eaves, Maynard D.; and Gilbert, John M.,3,498,303.

Gilbert, Joseph G. Surgical dressing with skin clips thereon. 3,525,340, 8-25-70, Cl. 128-337.

Gilbert, Lyman F., to Combustion Engineering, Inc. Apparatus for reconditioning tubes operating with townsend avalanche. 3,506,831, 4-14-70, Cl. 250-83.6

Gilbert, Lyman F., to Cumbustion Engineering, Inc. Flame scanner with head means incorporating mechanical shutter checking device. 3,538,332, 11-3-70, Cl. 250-105.

Gilbert, Lyman F., to Combustion Engineering, Inc. Flame condition sensing device. 3,548,395, 12-15-70, Cl. 340-228.2

Gilbert, Lyman F.; and Reum, John W., to Combustion Engineering, Inc. Activity detector having increased accuracy of response. 3,531,692, 9-29-70, Cl. 317-132.

Gilbert Manufacturing Co., Inc.: *See*—
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Gilbert Manufacturing Company, Inc.: *See*—
Schick, Henry W., 3,504,416.

Gilbert, Marcellus N., Jr., to Sylvania Electric Products, Inc. Circular lamp base. 3,546,523, 12-8-70, Cl. 313-318.

Gilbert, Marcellus N., Jr.; and Wiley, Harold I., Jr., to Sylvania Electric Products, Inc. Lamp base for electric gaseous discharge devices. 3,534,216, 10-13-70, Cl. 313-318.

Gilbert, Marcellus N., Jr.: *See*—
Cleveland, Robert E.; and Gilbert, Marcellus N., Jr.,3,510,667.

Gilbert, Paul T., Jr., to Beckman Instruments, Inc. Process and apparatus for the detection of halogens. 3,504,976, 4-7-70, Cl. 356-87.

Gilbert, Philip R., to General Electric Company. Composite laminated mica-polyamide fiber paper commutator cone. 3,500,094, 3-10-70, Cl. 310-236.

Gilbert, Philip: *See*—
Grunin, Louis; Duhnkrack, George B.; Kinneman, William P.; and Gilbert, Philip,3,493,636.

Gilbert, Richard Lapham, Jr., to American Cyanamid Company. Novel ruminant feed supplement. 3,551,162, 12-29-70, Cl. 99-2.

Gilbert, Richard; and Robertson, John C., to Stanley Works, The. Utility knife. 3,509,627, 5-5-70, Cl. 30-125.

Gilbert, Ronald E.; Clampitt, Bert H.; and Anspon, Harry D., to Gulf Research & Development Company. Polyethylene-like polymer with backbone trans- unsaturation and method of preparing by cracking ethylene-vinyl acetate. 3,520,955, 7-21-70, Cl. 260-897.

Gilbert, Roswell W., to Dictaphone Corporation. Flywheel flutter filter. 3,512,022, 5-12-70, Cl. 310-74.

Gilbert, Samuel, to Hydro Manufacturing Inc. Oral hydrotherapeutic apparatus. 3,500,824, 3-17-70, Cl. 128-66.

Gilbert, Thomas I.: *See*—
Krulik, Leon F.; and Gilbert, Thomas I.,3,501,524.

Gilbertson, Gary O.; Longshore, Donald W.; and Schott, Robert E., to Allis-Chalmers Manufacturing Company. Hydraulic clutch and brake system. 3,507,372, 4-21-70, Cl. 192-18.

Gilbertson, John E. Ash tray device. 3,516,232, 6-23-700, Cl. 55-385.

Gilboy, Lawrence J.; Hayes, Richard L.; Masucci, Eugene D.; and Patterson, James M., to Bell Telephone Laboratories, Incorporated. Two-way trunk circuit. 3,491,213, 1-20-70, Cl. 179-18.

Gilbreath, Eddie W., Jr.; and Mayer, William C., Jr., to United States Steel Corporation. Method and apparatus for controlling annealing furnaces. 3,496,033, 2-17-70, Cl. 148-13.

Gilch, Heinrich; and Schnell, Hermann, to Farbenfabriken Bayer Aktiengesellschaft. Process for preparing high molecular weight polyimides from ammonium dicarboxylic acid anhydride compounds. 3,503,928, 3-31-70, Cl. 260-47.

Gilchrist, Allan E., to Ford Motor Company. Electrocoating process. 3,532,613, 10-6-70, Cl. 204-181.

Gilchrist, James Gordon, to Domtar Limited. Side carry carton. 3,533,549, 10-13-70, Cl. 229-51.

Gilchrist, James M., Jr. Apparatus for marking covered items. 3,506,353, 4-14-70, Cl. 355-102.

Gilchrist, Ralph E., to Tenneco Oil Company. Method of determining the movement of heat in a subterranean formation using bacteria analysis. 3,489,217, 1-13-70, Cl. 166-246.

Gildart, Richard F., to Rehrig Pacific Company. Wire frame reels. 3,503,569, 3-31-70, Cl. 242-77.2

Gildehaus, Everett C., to Aerojet-General Corporation. Magnetic holder codable conveying system. 3,499,521, 3-10-70, Cl. 198-38.

Gilden, Lloyd; and Freeman, Chester, Jr. Educational device. 3,508,349, 4-28-70, Cl. 35-35.

Gildersleeve, John T., to Bemis Company, Inc. Compression packaging. 3,516,217, 6-23-70, Cl. 53-24.

Giler, Roger R., to Kanthal Corporation, The. High temperature electric resistance device. 3,522,574, 8-4-70, Cl. 338-316.

Giles, Alan Frederick, to Unilever Limited. Force measuring instruments. 3,501,951, 3-24-70, Cl. 73-141.

Giles, Ben F., to Texas Instruments, Incorporated. Wave generator arrays for marine seismic exploration. 3,491,848, 1-27-70, Cl. 181-0.5

Giles, Charles E. Quick set-up production plate. 3,540,128, 11-17-70, Cl. 33-174.

Giles, George W.: *See*—
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Giles, John George. Variable hydraulic transmission. 3,488,956, 1-13-70, Cl. 60-53.

Giles, John George. Variable ratio transmission. 3,489,035, 1-13-70, Cl. 74-687.

Giles, Sol L.; and Patch, Philip G., said Giles assor. to said Patch. Devices for bonding thermoplastic filaments. 3,518,150, 6-30-70, Cl. 156-426.

Giles, Stuart, to North American Rockwell Corporation. Solid electrolyte electrochemical timer having a relatively stable prestressed condition. 3,544,852, 12-1-70, Cl. 317-230.

Giles, Stuart, to North American Rockwell Corporation. Electrochemical timer having a solid electrolyte. 3,544,853, 12-1-70, Cl. 317-230.

Gilfert, Jack Z., to Bolls & King. Photolithography. 3,543,291, 11-24-70, Cl. 96-33.

Gilford Instrument Laboratories, Inc.: *See—*
Emary, Robert J., 3,515,491.
Gilford, Saul R.; and Grengg, Walter, 3,517,201.
Gilford, Saul R.; and Emary, Robert J., 3,526,125.
Gilford, Saul R., 3,545,932.
Wood, Willis Avery; and Gilford, Saul R., 3,523,737.

Gilford, Saul R., to Gilford Instrument Laboratories, Inc. Biological fluid sample processing apparatus. 3,545,932, 12-8-70, Cl. 23-253.

Gilford, Saul R.; and Emary, Robert J., to Gilford Instrument Laboratories, Inc. Test sample identifying system and apparatus for use in connection therewith. 3,526,125, 9-1-70, Cl. 73-53.

Gilford, Saul R.; and Grengg, Walter, to Gilford Instrument Laboratories, Inc. Apparatus for controlling the transmittance of radiant energy. 3,517,201, 6-23-70, Cl. 250-217.

Gilford, Saul R.: *See—*
Wood, Willis Avery; and Gilford, Saul R.,3,523,737.

Gili, Ricardo Aguirre, to Flamagas S.A. Lighter support. 3,533,035, 10-6-70, Cl. 335-285.

Gilio, Arthur S.; Gortz, Norman; and Maccarone, Michael B. Pressure infusion device for medical use. 3,506,005, 4-14-70, Cl. 128-214.

Gilker, Jean Claude: *See—*
Pavilanis, Vytautas; Marois, Paul; Boudreault, Armand; and Gilker, Jean Claude,3,518,347.

Gilkeson, David C.; and Buzawa, Michael J., to Minnesota Mining and Manufacturing Company. Objective lens for microfilm camera. 3,551,030, 12-29-70, Cl. 350-196.

Gilkey, Russell: *See—*
Caldwell, John R.; and Gilkey, Russell,3,522,328.
Caldwell, John R.; and Gilkey, Russell,3,546,178.

Gill, Colm A.: *See—*
Smith, Kenneth A.; Freeman, Dennis B.; and Gill, Colm A.,3,525,651.

Gill, Donald H., to General Motors Corporation. Headlamp adjusting screw and nut assembly. 3,508,593, 4-28-70, Cl. 151-41.75

Gill, Edward William, to Moore Business Forms, Inc. Decollator with improved friction feed means. 3,520,530, 7-14-70, Cl. 270-52.5

Gill, Ferdinand. Safety device for punch presses and the like. 3,490,310, 1-20-70, Cl. 74-615.

Gill, Gilbert M., to Dysona Industries Limited. Dielectric heating apparatus. 3,526,739, 9-1-70, Cl. 219-10.55

Gill, Harry A.; and Redmond, Melvin W., Jr., to Perkin-Elmer Corporation, The. Variable speed drive arrangement for an analytical instrument. 3,531,700, 9-29-70, Cl. 318-8.

Gill, James A.; and Stearns, Marvin O., to National Lead Company. Process of drilling wells. 3,507,343, 4-21-70, Cl. 175-66.

Gill, John A., Jr.: *See—*
Venable, Lawrence B.; Gill, John A., Jr.; and Earle, Roger T., Jr.,3,528,241.

Gill, John B., to Coblitz, Sanford E. Pipe machining tool. 3,540,329, 11-17-70, Cl. 82-4.

Gill, John Ernest, to Imperial Chemical Industries Limited. Process for the purification of water-soluble hydroxyalkyl cellulose. 3,527,751, 9-8-70, Cl. 260-232.

Gill, John J., to Pennsylvania Engineering Corporation. Furnace removal. 3,504,421, 4-7-70, Cl. 29-401.

Gill, Joseph R. Method of heat treating a hacksaw blade. 3,540,949, 11-17-70, Cl. 148-134.

Gill, Joseph; and Rouvalis, George, to Westinghouse Electric Corporation. Function generator. 3,550,020, 12-22-70, Cl. 328-142.

Gill, Kenneth R.: *See—*
Herbert, Douglas; and Gill, Kenneth R.,3,514,908.

Gill, Lester D. Carton with plastic sealing. 3,498,521, 3-3-70, Cl. 229-16.

Gill, Lester D. Carton construction with pour spout. 3,549,080, 12-22-70, Cl. 229-17.

Gill, Michael E.: *See—*
Snoy, Joseph B.; Gill, Michael E.; and White, Basil,3,540,556.

Gill, Norman W., to Cargill, Incorporated. Bactericidal quaternary ammonium compositions. 3,493,660, 2-3-70, Cl. 424-329.

Gill, Norman W.; and Smith, Roscoe S., to Cargill, Incorporated. Fabric softener. 3,546,115, 12-8-70, Cl. 252-8.8

Gill, Robert F.: *See—*
Sator, Karl; and Gill, Robert F.,3,539,704.

Gill, Roger Francis; and Larson, Robert William, to General Cable Corporation. Apparatus for coating the inside of continuously welded pipe. 3,491,721, 1-27-70, Cl. 118-622.

Gill, Thomas R., to GS Equipment Company. Covers for plating barrels and the like. 3,507,529, 4-21-70, Cl. 292-162.

Gill, Thomas R., to G S Equipment Company. Corrosion testing apparatus. 3,542,517, 11-24-70, Cl. 23-253.

Gill, William G., to Electrothermic Co. Method and apparatus for secondary recovery of oil. 3,507,330, 4-21-70, Cl. 166-248.

Gill, William G., to Electrothermic Co., The. Method and apparatus for recovery of minerals from sub-surface formations using electricity. 3,547,193, 12-15-70, Cl. 166-248.

Gilland, Jerry R.: *See—*
Ried, Louis, Jr.; and Gilland, Jerry R.,3,515,878.

Gillard, Calvin W., to Lockheed Aircraft Corporation. Optical differential interferometer discriminator for FM to AM conversion. 3,503,012, 3-24-70, Cl. 332-1.

Gillaspie, Robert E.; and Houle, Elmer R., to Safeco Products, Inc. Safety blade for rotary lawnmowers. 3,545,189, 12-8-70, Cl. 56-295.

Gille, Kenneth L., to Buck Manufacturing Company. Self-equalizing multiple point lifting system. 3,519,303, 7-7-70, Cl. 294-81.

Gillemot, George W., to Plummer, Walter A. Cable splice boot. 3,495,026, 2-10-70, Cl. 174-138.

Gillemot, George W., to Plummer, Walter A. protective enclosure for cables. 3,519,728, 7-7-70, Cl. 174-76.

Gillemot, George W.; and Thompson, John T. Protective cover and method of anchoring same to a supporting surface. 3,499,102, 3-3-70, Cl. 174-138.

Gillemot, George W.; and Thompson, John T. Service wire encapsulating kit. 3,523,607, 8-11-70, Cl. 206-47.

Giller, Morris, to Bendix Corporation, The. Antenna feed comprising dipole array with conductive ground plane. 3,545,001, 12-1-70, Cl. 343-776.

Giller, Ronald R.; Schneider, Milton; Condon, William J.; and Torrisi, Alfred F., 1/2 to Dictograph Products, Inc., and 1/2 to Transitor Electronics, Inc. Thick film capacitors for miniaturized circuitry. 3,544,434, 12-1-70, Cl. 204-38.

Giller, Solomon Aronovich; Lidaka, Marger Jurievich; Venter, Karl Karlovich; Kalnberga, Renata Jurievna; Ziderman, Alna Avgustovna; and Dauvarte, Anda Zhanovna. Method of obtaining N,N-bis-(2-chloroethyl)- hydrazones of the 5-nitrofuran series. 3,526,643, 9-1-70, Cl. 260-347.7

Giller, Solomon Aronovich; Shimanskaya, Maria Vladislavovna; Egert, Vitold Edgarovich; and Venter, Karl Karlovich. Water soluble alkali metal salts of 1-(5'- nitrofurfurylideneamino)-hydantoin vinylogs. 3,531,477, 9-29-70, Cl. 260-240.

Giller, Solomon Aronovich: *See—*
Venter, Karl Karlovich; Giller, Solomon Aronovich; and Tairule, Via Vilisovna,3,491,123.

Gillerman, Joseph B.: *See—*
United States of America,National Aeronautics and Space Administration, Administrator, 3,547,801.

Gillery, Frank H.; Dvorak, Jacob A.; Rabenold, Ronald R.; and Peffer, John R., to PPG Industries, Inc. Glass laminate having a brominated resin interlayer. 3,549,478, 12-22-70, Cl. 161-185.

Gillery, Frank H.; and Pressau, Jean P., to PPG Industries, Inc. Sputtering of metal oxide films in the presence of hydrogen and oxygen. 3,506,556, 4-14-70, Cl. 204-192.

Gilles, Hans. Access door. 3,537,212, 11-3-70, Cl. 49-381.

Gilles, Jack C., to Goodrich, B. F., Company, The. Hydroxyphenylalkyleneyl isocyanurates. 3,531,483, 9-29-70, Cl. 260-248.

Gilles, Richard C.: *See—*
Davis, William J.; and Gilles, Richard C.,3,547,819.
Davis, William J.; Gilles, Richard C.; and Miller, Lawrence A.,3,541,011.

Gillespie, Gerald J.; and Couchot, Lawrence C., to Koppers Company, Inc. Method of making a reinforced filament wound pipe. 3,501,359, 3-17-70, Cl. 156-84.

Gillespie, Henderson C.: *See—*
Garrett, Walter L.; and Gillespie, Henderson C.,3,519,566.
Garrett, Walter L.; Gillespie, Henderson C.; and Sciambi, Louis J.,3,522,181.

Gillespie, Peter James, to Energy Conversion Limited. Fluid supply systems. 3,505,119, 4-7-70, Cl. 136-86.

Gillespie, Ralph, to Deering Milliken Research Corporation. Fabric package. 3,500,994, 3-17-70, Cl. 206-59.

Gillespie, Robert A., to Stauffer Chemical Company. Moisture controller for drycleaning system. 3,522,718, 8-4-70, Cl. 68-13.

Gillespie, Robert D.: *See—*
Mizelle, Adrian C.; and Gillespie, Robert D.,3,507,088.
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Gillespie, Sidney L., to Woodward Governor Company. Load dividing control for multiple engine drive. 3,511,052, 5-12-70, Cl. 60-97.

Gillett, John B., to International Business Machines Corporation. Integrated differential transistor. 3,489,963, 1-13-70, Cl. 317-235.

Gillett, John B.; and Hallett, Michel H., to International Business Machines Corporation. High speed latch circuit arrangement for driving a utilization device. 3,509,380, 4-28-70, Cl. 307-289.

Gillett Tool Co., Inc.: *See—*
Long, Emile David; and Richardson, Keith C., 3,500,801.
Long, Emile David, 3,500,802.
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Gillham, Helen Currier; Sherr, Allan Ellis; and Klein, Harvey Gerald, to American Cyanamid Company. Flame retardant agents for thermoplastic products. 3,530,164, 9-22-70, Cl. 260-45.8

Gilliam, Corona: *See—*
Gilliam, Fides; and Gilliam, Corona,3,523,376.

Gilliam, D. Howard. Elastic tension cord. 3,549,143, 12-22-70, Cl. 267-74.

Gilliam, Fides; and Gilliam, Corona. Teaching aid. 3,523,376, 8-11-70, Cl. 35-31.

Gilliam, James P. Check valve. 3,498,322, 3-3-70, Cl. 137-527.2

Gilliam, Paul V.: *See—*
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Gilliard, Allen F., to Signode Corporation. Toggle controlled strapping apparatus and method. 3,526,187, 9-1-70, Cl. 100-2.

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Gilliem, Lester G. Beverage drinking tube installation. 3,547,308, 12-15-70, Cl. 220-90.2

Gillieron, Claude; Viret, Robert; and Stahl, Alain, to Societe Genevoise d'Instruments de Physique. Photoelectric microscope. 3,520,625, 7-14-70, Cl. 356-211.

Gillies, Graham; Grigg, Michael; and Isaacs, Anthony J.R., to Esso Research and Engineering Company. Liquid delivery device. 3,494,387, 2-10-70, Cl. 141-40.

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Gilligan, Brian James. Trailer. 3,527,496, 9-8-70, Cl. 296-23.

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Toth, J. Roger; and Gilliland, Michael L.,3,497,783.
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Gillio-Tos, Mario; and Kesseler, Helmut, to Grace, W. R., & Co. Fog resistant films of vinyl chloride polymers. 3,542,713, 11-24-70, Cl. 260-23.

Gillionnier, Julien L.; Jacquet, Yves; and Kamiski, Jean-Caiude Pascal, to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation. Electronic synchronous rectifier circuit. 3,525,034, 8-18-70, Cl. 323-31.

Gillis, Kenneth H., to General Electric Company. Process for manufacturing grinding wheels containing copper-coated diamonds. 3,518,068, 6-30-70, Cl. 51-295.

Gillis, Thomas S., Jr. Throttle and shutoff valve. 3,521,852, 7-28-70, Cl. 251-121.

Gillis, Thomas S., Jr.; Pennington, John W.; and Bird, Elry C., said Pennington and said Bird assors. to said Gillis. Throttle and shutoff valve. 3,521,853, 7-28-70, Cl. 251-122.

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Gillman, William J.: *See—*
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Gillmer, Arnold H.; and Hance, Harold V., to Hughes Aircraft Company. Coherent-angle tracking system. 3,522,604, 8-4-70, Cl. 343-7.3

Gillmore, Alfred Edward, to G. Q. Parachute Company, Limited. Quick release devices. 3,510,921, 5-12-70, Cl. 24-205.17

Gillo, Leon, to Pharmatic, Inc. Amine salts of nopinic acid. 3,520,920, 7-21-70, Cl. 260-501.17

Gillum, Willard, Jr., to United States Steel Corporation. Blast furnace cooling plate lock. 3,512,767, 5-19-70, Cl. 266-32.

Gilman, David John; and McLoughlin, Bernard Joseph, to Imperial Chemical Industries Limited. Alkanolamine derivatives. 3,538,150, 11-3-70, Cl. 260-501.17

Gilman, Frederick C., to Harrworth, Inc. Separator for removing gas bubbles from flowing liquids. 3,488,926, 1-13-70, Cl. 55-199.

Gilman, Harry S. Display means. 3,525,171, 8-25-70, Cl. 40-158.

Gilman, Lucius G.; and Lait, Robert I., to Monsanto Research Corporation. Propellant compositions comprising solid solution of lithium perchlorate in a polyurea binder. 3,531,339, 9-29-70, Cl. 149-83.

Gilman, Lucius G.; and Lait, Robert I., to Monsanto Research Corporation. Composite propellant compositions containing dissolved lithium perchlorate in the polymeric binder. 3,537,922, 11-3-70, Cl. 149-19.

Gilman, Paul B.; Litzerman, Roberta A.; and Illingsworth, Bernard D., to Eastman Kodak Company. Direct positive silver halide emulsions containing halogenated cyanine dyes. 3,501,309, 3-17-70, Cl. 96-106.

Gilman, Richard F.: *See—*
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Gilman, Robert W., to California Pellet Mill Company. Adjustable feed deflector. 3,538,546, 11-10-70, Cl. 18-12.

Gilman, Stanley F.; and Wood, Russell E. Motor starting and running system for refrigeration apparatus. 3,497,785, 2-24-70, Cl. 318-221.

Gilmartin, Larry D.: *See—*
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Gilmartin, Michael J., Jr.; and Shively, Richard R., to Bell Telephone Laboratories, Incorporated. Digital processor for performing fast fourier transforms. 3,517,173, 6-23-70, Cl. 235-156.

Gilmer, Deward W. Attracting light. 3,538,822, 11-10-70, Cl. 95-1.

Gilmer, John C.: *See—*
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Gilmore, Burdette B., Jr. Dental stereoscope. 3,502,390, 3-24-70, Cl. 350-133.

Gilmore Industries, Inc.: *See—*
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Gilmore, Samuel E.: *See—*
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Gilmore, William J.; and Peterson, Vincent C. J., to American Chain & Cable Co., Inc. Packaging of self-dischargeable wire. 3,537,252, 11-3-70, Cl. 57-156.

Gilmour, George A., to Westinghouse Electric Corporation. Transient radiation hardening method and apparatus for electronics circuitry. 3,519,885, 7-7-70, Cl. 317-33.

Gilmour, George A.; and Dottle, Henry, Jr., to Westinghouse Electric Corporation. Transistor logarithmic transfer circuit. 3,492,497, 1-27-70, Cl. 307-229.

Gilmour, Robert A. Wave sprinkler. 3,498,543, 3-3-70, Cl. 239-242.

Gilmour, Wayne D., to Northern Electric Company Limited. Pulse control circuit. 3,522,454, 8-4-70, Cl. 307-265.

Gilmour, William Dudley, to Electric & Musical Industries Limited. Sound recognition apparatus. 3,541,259, 11-17-70, Cl. 179-1.

Gilmoure, Harold J., to Sales Promotion Products, Inc. Banner mounting device. 3,495,346, 2-17-70, Cl. 40-128.

Gilreath, Lafayette E. Centrifugal separator with replaceable discharge outlet bushings. 3,520,473, 7-14-70, Cl. 233-47.

Gilreath, Lafayette E. Sealed pipe joint and releasing means therefor. 3,534,776, 10-20-70, Cl. 138-109.

Gilreath, Lafayette E. Combined centrifugal and magnetic separator mechanism. 3,534,902, 10-20-70, Cl. 233-7.

Gilsdorf, Robert B. Hand grip for crutch. 3,517,678, 6-30-70, Cl. 135-51.

Gilsig, Tobias, to Hydro-Quebec. Interconnected harmonic filters for electric power lines. 3,535,542, 10-20-70, Cl. 307-105.

Gilson Bros. Co.: *See—*
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Gilson, Robert E.: *See—*
Gilson, Warren E.; and Gilson, Robert E.,3,501,912.

Gilson, Russell A.; and Reitmeyer, Randy A., to United States of America, Army. Solid-state, amplitude-modulated, wideband, radio- frequency noise generator. 3,514,716, 5-26-70, Cl. 331-78.

Gilson, Warren E. Coupled articulated containers and apparatus utilizing same. 3,538,962, 11-10-70, Cl. 141-131.

Gilson, Warren E.; and Gilson, Robert E. Articulated coupling. 3,501,912, 3-24-70, Cl. 59-78.

Gilstrap, James B. Optical flight control system. 3,549,109, 12-22-70, Cl. 244-77.

Giltaire, Marcel Charles, to Charbonnages de France. Ultra violet flame dector using a trigger circuit to avoid false alarms. 3,544,792, 12-1-70, Cl. 250-83.3

Gilvary, John P.: *See—*
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Gilwood, Martin E., to Pall Corporation. Sewage treatment process and apparatus. 3,535,234, 10-20-70, Cl. 210-7.

Gimbel, Peter R., to Blue Meridian Company, Inc. Buoyancy control system with choke. 3,540,398, 11-17-70, Cl. 114-16.

Gimler, Warren A. Pipe clamp. 3,508,586, 4-28-70, Cl. 138-89.

Gimmi, Siegfried: *See—*
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Gimmler, Joachim; and Glock, Winfried, to Fichtel & Sachs A.G. Torque convertor and clutch. 3,517,789, 6-30-70, Cl. 192-3.21

Ginder, Paul, to Burton Electrochemical Co., Inc., mesne. Production of metal and alloy particles by chemical reduction. 3,494,760, 2-10-70, Cl. 75-0.5

Gindi, Abraham M., to International Business Machines Corporation. Information detecting apparatus. 3,491,303, 1-20-70, Cl. 328-112.

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Giner, Jose D.; and Sizer, John H., Jr., to Leesona Corporation, mesne. Fuel cell and electrodes therefor. 3,513,029, 5-19-70, Cl. 136-86.

Giner, Jose D.; and Spiegler, Kurt S., to Leesona Corporation, mesne. Fuel cell comprising an ion-exchange membrane having electrolyte channels therein. 3,514,336, 5-26-70, Cl. 136-86.

Giner, Jose, to United Aircraft Corporation. Process of removing carbon dioxide from gas streams using fuel cell. 3,511,712, 5-12-70, Cl. 136-86.

Giner, Jose, to United Aircraft Corporation. Carbon dioxide absorber means and fuel cell to regenerate absorbent. 3,519,488, 7-7-70, Cl. 136-86.

Gineste, Robert, to Arca Premoncontrole. Electronic proportional and integral controller with limited saturation of the integral action. 3,504,291, 3-31-70, Cl. 328-171.

Gingell, Michael John, to International Standard Electric Corporation. Frequency characteristic shaping circuits. 3,546,589, 12-8-70, Cl. 325-59.

Gingell, Michael John: *See—*
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Gingher, Carl E. Valet rack post. 3,547,475, 12-15-70, Cl. 287-103.

Gingras, William P.: *See—*
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Gingrich, Reynard W.: *See—*
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Ginn, Hal G., to Copolymer Rubber & Chemical Corporation. Method for suppressing molecular weight increases during the water-deactivation of transition-metal based anionic-coordination catalysts. 3,507,842, 4-21-70, Cl. 260-80.78

Ginsberg, Lillian. Denture care packet including a cleaning fabric and adhesive compositions. 3,534,887, 10-20-70, Cl. 222-107.

Ginsburgh, Irwin: *See—*
Jacobs, Robert B.; Kapff, Sixt Frederick; and Ginsburgh, Irwin,3,538,746.

Ginsburgh, Irwin, to Standard Oil Company (Indiana). Device for automatically filling vehicle tanks with motor fuel. 3,527,268, 9-8-70, Cl. 141-98.

Ginsburgh, Irwin; and Wright, Lawrence T., to Standard Oil Company (Indiana). Control mechanism for automatic dispensing of motor fuel. 3,536,109, 10-27-70, Cl. 141-98.

Ginsburgh, Irwin; Wright, Lawrence T.; and Pennington, Benjamin D., to Standard Oil Company. Window cleaning apparatus. 3,538,535, 11-10-70, Cl. 15-321.

Ginsburgh, Irwin; Wright, Lawrence T.; and Rhodes, Joseph C., to Standard Oil Company (Indiana). Apparatus for automatically fuelling vehicles. 3,530,906, 9-29-70, Cl. 141-59.
Nebelsiek, Hilbert J.; Wright, Lawrence T.; and Ginsburgh, Irwin,3,502,117.
Wright, Lawrence T.; Kapff, Sixt Frederick; and Ginsburgh, Irwin,3,538,745.

Ginter, Charles A.: *See—*
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Ginther, Gary D., to Clyde Corporation, The. Apparatus for feeding articles one at a time into a tube. 3,517,856, 6-30-70, Cl. 221-278.

Ginty, Bernard K.: *See—*
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Gintz, Francis Paul, to BP Chemicals (U.K.) Limited. Process for the manufacture of stable aqueous dispersions of vinyl esters of organic acids and ethylene. 3,532,658, 10-6-70, Cl. 260-29.6

Giolito, Silvio L., to Stauffer Chemical Company. Antioxidant synergist for polyolefins. 3,492,336, 1-27-70, Cl. 260-481.

Giolito, Silvio L., to Stauffer Chemical Company. Thio and dithiodicarboxylic acid thioether esters. 3,501,520, 3-17-70, Cl. 260-481.

Giolito, Silvio L.; and Schlechter, Melvin M., to Stauffer Chemical Company. Process for preparing carboxylic acid thioanhydrides. 3,536,737, 10-27-70, Cl. 260-399.

Giolitti, Nicolo; and Zambolin, Adriano, to Olivetti, Ing., C., & C., S.p.A. Serial setup device for a calculating, accounting or similar machine. 3,504,163, 3-31-70, Cl. 235-60.

Giommi, Guido. Process for the manufacture of urea from ammonia and carbon dioxide. 3,530,180, 9-22-70, Cl. 260-555.

Gionet, Edmond R., to General Motors Corporation. Single pole double throw switch with a one piece contact spring with two U-shaped segments center biasing the actuator. 3,527,913, 9-8-70, Cl. 200-153.

Giordano, Francis A.; and Singer, Edward N., to United States of America, Navy. Pulse statistical distribution analyzer. 3,532,977, 10-6-70, Cl. 324-77.

Giordano, Joseph. Apparatus for coating test panels. 3,530,823, 9-29-70, Cl. 118-12.

Giordano, Nicholas D., to Huron Road Hospital. Method and apparatus for thrombus formation time determinations. 3,518,057, 6-30-70, Cl. 23-230.

Giordano, Raymond L., to RCA Corporation. Signal envelope discriminator and gating circuit. 3,505,537, 4-7-70, Cl. 307-235.

Giordano, Salvatore, to United States of America, Atomic Energy Commission. Multi-periodic accelerating structure. 3,530,332, 9-22-70, Cl. 315-5.41

Giordmaine, Joseph A.: *See—*
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Giorgi, Daniel: *See—*
Chollet, Gerard; Giorgi, Daniel; Costes, Didier; and Thome, Paul,3,537,420.

Giorgi, Tiziano A.: *See—*
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Giorgianni, Edward J.; Drago, Peter J., Jr.; and Groves, Charles E., to Eastman Kodak Company. Photographic processes utilizing siloxane water spotting inhibitors. 3,545,970, 12-8-70, Cl. 96-55.

Giovanardi, Sandro: *See—*
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Giovannelli, Nicolas: *See—*
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Giovannelli, Vilim; and Giovannelli, Nicolas. Indicator of air-pressure in tyres. 3,508,193, 4-21-70, Cl. 340-58.

Giovinazzo, Joe L.: *See—*
Williams, Harrison J.; and Giovinazzo, Joe L.,3,532,357.

Gippin, Morris, to Firestone Tire & Rubber Company, The. Polymerization of butadiene using a catalytic mixture of a lithium aluminum hydride/aluminum trichloride reaction product plus a cobalt salt of a carboxylic acid. 3,519,612, 7-7-70, Cl. 260-94.3

Gippin, Morris, to Firestone Tire & Rubber Company, The. Polymerization of isoprene. 3,523,114, 8-4-70, Cl. 260-94.3

Gipson, Ethel L. Adjustable sink with cabinets. 3,502,384, 3-24-70, Cl. 312-228.

Gipstein, Edward; and Karabinos, Joseph V., to Ansul Company, mesne. Nematocidal method. 3,505,455, 4-7-70, Cl. 424-321.

Giragosian, Pakrad A., to Raytheon Company. Controllable reentry vehicle. 3,511,453, 5-12-70, Cl. 244-1.

Giraitis, Albert P.: *See—*
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Giraitis, Albert P.; Kobetz, Paul; Laran, Roy J.; and Shapiro, Hymin, to Ethyl Corporation. Production of inorganic fluorochemicals and silicon dioxide. 3,488,702, 1-6-70, Cl. 23-88.

Girantet, Antoine; Lafont, Pierre Yves Andre; Roget, Jean Francois; and Tarbouriech, Philippe Yvon, to Rhone-Poulenc S.A. Continuous preparation of glycol phthalates. 3,507,905, 4-21-70, Cl. 260-475.

Girard, Andre Georges; and Ray, Andre, to Roussel-UCLAF. Sulfobenzoyl hydrazones of 5-nitrofurfuraldehyde. 3,547,914, 12-15-70, Cl. 260-240.

Girard, Andre Jean, to Office National d'Etudes et de Recherches Aerospatiales. Spectrophotometer. 3,539,261, 11-10-70, Cl. 356-93.

Girard, Andre: *See—*
Babel, Louis; and Girard, Andre,3,503,598.

Girard, Andre; and Ray, Andre, to Roussel-UCLAF. Novel phenazine compounds and process. 3,499,899, 3-10-70, Cl. 260-267.

Girard, Edward A., Jr., to Kaiser Steel Corporation. System for subjecting a hollow body to fluid under pressure. 3,537,299, 11-3-70, Cl. 73-49.4

Girard, Harry J. Rotatable pig for pipe lines. 3,541,628, 11-24-70, Cl. 15-104.06

Girard, Harry J. Foamed plastic pig for pipe lines. 3,543,323, 12-1-70, Cl. 15-104.06

Girard, Larry J., to Honeywell Inc. Galvanometer indicating device having the coils thereof offset for providing a logarithmic indication. 3,509,458, 4-28-70, Cl. 324-97.

Girard, Louis A., Jr.; and Ross, Robert S., to Goodyear Aerospace Corporation. Automatic stabilizing system for tethered aerodynamic bodies. 3,547,378, 12-15-70, Cl. 244-33.

Girard, Louis J.; Sampson, Whitney G.; and Soper, Joseph W., to Du Pont de Nemours, E. I., and Company. Contact lens having an index of refraction approximating that of human tears. 3,542,461, 11-24-70, Cl. 351-160.

Girard, Peter F., to Ryan Aeronautical Co., The. V/STOL aircraft with variable geometry rotor/wing. 3,490,720, 1-20-70, Cl. 244-7.

Girard, Pierre: *See—*
Barjot, Michel Francois; Chatelon, Andre Edouard Joseph; and Girard, Pierre,3,537,100.

Girard, Raymond G. Self-supporting sign. 3,534,491, 10-20-70, Cl. 40-124.1

Girard, Rene Fernand Victor: *See—*
Chezel, Pierre Georges Henri; and Girard, Rene Fernand Victor,3,489,661.
Chezel, Pierre Georges Henri; Girard, Rene Fernand Victor; Grunberg, Georges; and Neel, Louis,3,508,887.

Girardi, Antonio Lawrence. Orchard apparatus. 3,523,404, 8-11-70, Cl. 53-391.

Giraud, Francois L., to Societe de l'Aerotrain. Fluid cushion skirt arrangements for ground- effect machines. 3,512,604, 5-19-70, Cl. 180-127.

Giraud, Francois Louis, to Societe de l' 'Aerotrain'. Fluidic track for ground-effect transportation. 3,540,378, 11-17-70, Cl. 104-23.

Giraud, Francois L.: *See—*
Paris, Francois Gilbert; and Giraud, Francois L.,3,516,362.

Giraud, Henri; and Martin, Vincent. Chuck for a machine tool. 3,499,657, 3-10-70, Cl. 279-114.

Giraudeau, Andre, to Les Isolants Francais (Societe Anonyme). Composite sound insulating boards. 3,525,417, 8-25-70, Cl. 181-33.

Giraudet, Jean Eugene Raphael: *See—*
Giraudet, Pierre Jean Gabriel; and Giraudet, Jean Eugene Raphael,3,491,913.
Giraudet, Pierre Jean Gabriel; and Giraudet, Jean Eugene Raphael,3,527,373.

Giraudet, Pierre Jean Gabriel; and Giraudet, Jean Eugene Raphael, to Giropor. Hand portable container. 3,491,913, 1-27-70, Cl. 220-42.

Giraudet, Pierre Jean Gabriel; and Giraudet, Jean Eugene Raphael. Moulded container having integral reinforcing. 3,527,373, 9-8-70, Cl. 220-41.

Giraudi, Giorgio: *See—*
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Girault, Pierre: *See—*
Allais, Andre; and Girault, Pierre,3,502,680.
Allais, Andre; Girault, Pierre; Joly, Robert; Warnant, Julien; and Goffinet, Bernard,3,502,682.

Giravions Dorand: *See—*
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Gabriet, Jean Paul, 3,522,993.

Girden, Barney. Paddle for swimmer. 3,529,313, 9-22-70, Cl. 9-303.

Girdler Corporation: *See—*
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Girdler-Sudchemie Katalysator G.m.b.H.: *See—*
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Girdwood, James, to Mallory, P. R., & Co., Inc. Portable battery tester. 3,493,863, 2-3-70, Cl. 324-145.

Girerd, Jean Louis Marie; Abdellatif, Ala Dine; and Bousson, Robert Pierre. Electric generator. 3,497,733, 2-24-70, Cl. 310-15.

Gires, Francois: *See—*
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Glass, Harold C.; and Alwin, Vinson C., to Farrington Electronics, Inc. Reading apparatus including means for re-sensing an item which is difficult to recognize. 3,546,670, 12-8-70, Cl. 340-146.3

Glass, Henry L.; and Schrenk, Walter J., to Dow Chemical Company, The. Method for extruding thermally degradable polymers. 3,511,903, 5-12-70, Cl. 264-171.

Glass, Henry P. Article of furniture having folding legs. 3,491,706, 1-27-70, Cl. 108-125.

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Glass, Marvin I.; Licitis, Gunars; and Barlow, Gordon A., to Glass, Marvin, & Associates. Audio-visual educational toy. 3,540,132, 11-17-70, Cl. 35-8.

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Glassbrook, Clarence I., to Ethyl Corporation. Process and apparatus for monitoring calcium content of brine from electrolytic cells. 3,527,566, 9-8-70, Cl. 23-230.

Glassburn, Emerson. Card holding and displaying device. 3,524,274, 8-18-70, Cl. 40-124.4

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Glasser, George; and Cseri, Joseph, to General Foods Corporation. Atmospheric sterilization. 3,537,867, 11-3-70, Cl. 99-186.

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Glassey, Eugene A. Blending control system. 3,532,102, 10-6-70, Cl. 137-91.

Glassey, Stephen F.; Pfeiffer, Frederick W.; and Davidson, Harold C., to Caterpillar Tractor Company. Hydraulic servo governor. 3,534,660, 10-20-70, Cl. 91-366.

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Glassman, Jerome M., to U.S. Vitamin & Pharmaceutical Corporation. Method for treating ulcers with benzoyl esters of 2- tertiary amino-1phenyl ethanols. 3,499,087, 3-3-70, Cl. 424-308.
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Gluskin, Richard S., to Sperry Rand Corporation. Pneumatic document stacking device. 3,503,607, 3-31-70, Cl. 271-63.
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Meier, Gunter, 3,545,393.
Gmeiner, Hans. Collapsible charcoal grill. 3,503,324, 3-31-70, Cl. 99-393.
G.M.P. Stencil Cutting Machine Company Ltd.: *See—*
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Gmur, Bruno, to Gebruder Buhler AG. Beater device for facilitating the filling of sacks. 3,504,713, 4-7-70, Cl. 141-77.
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Gnaedinger, John P.; and Ruiz, Alvaro L., to Soil Testing Services, Inc. Grouting system. 3,518,834, 7-7-70, Cl. 61-36.
Gnage, Oliver W., to Eastman Kodak Company. Image transfer mechanism. 3,520,603, 7-14-70, Cl. 355-4.
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Gnavi, Aldo; and Di Bartolomeo, Giacomo, to Compagnia Italiana Westinghouse Freni e Segnali. Railway brake control apparatus with optional graduated or direct brake release. 3,510,173, 5-5-70, Cl. 303-36.
Gnavi, Francesco, to Fiat Societa per Azioni. Process and apparatus for testing on the ground the orbital operation of the apparatus controlling the setting of a space vehicle. 3,516,288, 6-23-70, Cl. 73-117.1
Gniffke, Glenn D.: *See—*
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Gobel, Klaus. Support bracket for sealing members. 3,507,470, 4-21-70, Cl. 248-205.
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Gobini, Mario, to Teodoro Carneilli & C.S.p.A. Compact motorcycle. 3,511,521, 5-12-70, Cl. 280-270.
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Gobran, Riad H.; Bulbenko, George F.; and Peterson, Elizabeth A., to Thiokol Chemical Corporation. Ethylene sulfide polymers stabilized with polyamine additives. 3,522,205, 7-28-70, Cl. 260-45.9
Gobran, Riad H.; and Osborn, Stephen W., to Thiokol Chemical Corporation. Alkylene sulfide block interpolymers. 3,504,050, 3-31-70, Cl. 260-823.
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Gochman, Carl: *See—*
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Goda, George; and Fitter, John O., to Greiner Scientific Corporation. Coupling and method for making. 3,544,672, 12-1-70, Cl. 264-230.
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Goda, Yutaka: *See—*
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Godbersen, Byron L. Harrow attachment breakaway connection with overhead position. 3,490,544, 1-20-70, Cl. 172-705.
Godbersen, Byron L. Boom and fork lift apparatus. 3,498,485, 3-3-70, Cl. 214-131.
Godbersen, Byron L. Laterally tiltable harrow attachment. 3,503,452, 3-31-70, Cl. 172-202.
Godbersen, Byron L. Harrow attachment for roll-over plow. 3,523,584, 8-11-70, Cl. 172-161.
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Goddard, Arthur, to Girling Limited. Hydraulic brake systems. 3,532,394, 10-6-70, Cl. 303-21.
Goddard, Herman E., to American Saint Gobain Corporation. Machine for making wired glass. 3,505,052, 4-7-70, Cl. 65-148.
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Godding, Ronald George, to British East Iron Research Association, The. Granular material measuring apparatus having a compression and moisture content sensing cell. 3,551,805, 12-29-70, Cl. 324-58.5
Godefroi, Erik Fred; and van der Eijcken, Cyriel Alfons Maria, to Janssen Pharmaceutica, N.V. Imidazole carboxylates. 3,547,942, 12-15-70, Cl. 260-309.
Godel, Siegfried; and Rosenzweig, William, to Fashion Development Corporation. Mechanism for and method of folding and creasing pieces of ribbon. 3,511,422, 5-12-70, Cl. 223-37.
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Godet, Jean, to Service d'Exploitation Industrielle des Tabacs et des Allumettes. Devices for filling storage containers with rod- shaped products and especially cigars. 3,498,022, 3-3-70, Cl. 53-149.
Godfrey, Charles S., to Physics International Company. Apparatus for tenderizing food. 3,492,688, 2-3-70, Cl. 17-25.
Godfrey, George, Sir, & Partners (Holdings) Limited: *See—*
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Godfrey, Leonard E. A., to FMC Corporation. Flame-retardant rayon containing halogenated phosphonitrilate polymer. 3,505,087, 4-7-70, Cl. 106-15.
Godfrey, Leonard E. A., to FMC Corporation. Flame-retardant rayon containing mercapto- phosphonitrilate polymer. 3,532,526, 10-6-70, Cl. 106-165.
Godfrey, Norman Bell; and Schulze, Heinz, to Jefferson Chemical Company, Inc. Curing epoxy resins with amidines. 3,549,592, 12-22-70, Cl. 260-47.
Godin, James B., to Phillips Petroleum Company. Steam-oxygen regeneration of silica-group III-A- group IV-B catalysts. 3,546,132, 12-8-70, Cl. 252-419.
Godin, Russell L.; and Morrissy, George T., to Dresser Industries, Inc. Pressure controlled shaft seal injection system. 3,533,635, 10-13-70, Cl. 277-3.
Godoy Soler-Espiauba, Jose. Machine for picking olives and other fruits. 3,534,536, 10-20-70, Cl. 56-332.
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Godwin, Gilbert A., to Howe Richardson Scale Company. Analyzing circuit. 3,529,139, 9-15-70, Cl. 235-151.3
Godwin, Gilbert A., to Howe Richardson Scale Company. Constant weight feeding apparatus. 3,532,253, 10-6-70, Cl. 222-58.
Godwin, Patrick F., Jr.: *See—*
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Goebel, Walter. Cascade rectifier voltage multiplier with resonance coil. 3,539,903, 11-10-70, Cl. 321-15.
Goecke, Joseph W., to Gates Rubber Company, The. Flexible conduit. 3,534,778, 10-20-70, Cl. 138-122.
Goeddel, Walter V.; and Akins, Robert J., to Gulf General Atomic Incorporated. Method for producing pyrophoric metal alloy powders. 3,539,334, 11-10-70, Cl. 75-0.5
Goedertier, Peter V., to RCA Corporation. Unitary Q-switch laser device. 3,500,234, 3-10-70, Cl. 331-94.5
Goehre, Otto: *See—*
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Goell, James E., to Bell Telephone Laboratories, Incorporated. Quaternary differential-phase-modulated PCM repeater. 3,519,936, 7-7-70, Cl. 325-7.

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Goerden, Leonhard; Grunewald, Rainer; and Krosch, Joachim, to Farbenfabriken Bayer Aktiengesellschaft. Method and apparatus for making resin impregnated glass fiber mats. 3,536,549, 10-27-70, Cl. 156-62.2
Goerner, John J. False fire alarm control. 3,531,794, 9-29-70, Cl. 340-297.
Goerrig, Dieter. Solids containing alkali metal hydroxide hydrate and alkali metal borohydrides. 3,538,012, 11-3-70, Cl. 252-188.
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Goetschel, Charles T.; and Campanile, Vincent A., to Shell Oil Company. Fluorine purification. 3,530,052, 9-22-70, Cl. 204-157.1
Goettelmann, John C., to Bell Telephone Laboratories, Incorporated. Photon coupling for a communication circuit. 3,492,488, 1-27-70, Cl. 250-214.
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Goettl, William H. Electrostatic air cleaner and control means therefor. 3,504,482, 4-7-70, Cl. 55-139.
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Goetz, Fred E.; Druzba, Perry R., Jr.; Hause, James R.; and Seeley, Gerard, to International Business Machines Corporation. Apparatus for providing a finished surface on workpieces. 3,550,325, 12-29-70, Cl. 51-156.
Goetz, George W., to Eaton Yale & Towne, Inc. Inflatable confinement vehicle safety apparatus. 3,516,685, 6-23-70, Cl. 280-150.
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Goetz, John H.; Golden, Michael E.; Lee, Adolphus L.; and Zeigner, Willard L., to Mattel, Inc. Sound illustrated book. 3,529,832, 9-22-70, Cl. 274-1.
Goetz, Kurt, to Impragnieranstalt A.G. Method of making a multilayered paper container. 3,503,310, 3-31-70, Cl. 93-94.
Goetz, Martin A., to Applied Data Research, Inc. Automatic system for constructing and recording display charts. 3,533,086, 10-6-70, Cl. 340-172.5
Goetz, Seymour L. Automatic dissolve control for slide projectors having a source of illumination and a signal actuated slide advance. 3,544,210, 12-1-70, Cl. 353-86.
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Goetzeler, Herbert: *See—*
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Goetzke, Juergen, to Vickers-Zimmer Aktiengesellschaft Planung und Bau von Industrieanlagen. Method for extracting lower molecular components from granulated polyamides. 3,539,539, 11-10-70, Cl. 260-78.
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Goff, John C., to United States of America, Navy. Method for cushioning and sealing. 3,518,339, 6-30-70, Cl. 264-249.
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Goffe, Charles A., to Eastman Kodak Company. Nuclei for use in solvent transfer systems. 3,532,497, 10-6-70, Cl. 96-29.
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Goffe, William L., to Xerox Corporation. Method of charging a zinc oxide photoconductive layer with a positive charge. 3,519,420, 7-7-70, Cl. 96-1.
Goffe, William L., to Xerox Corporation. Photoelectrosolography. 3,520,681, 7-14-70, Cl. 96-1.
Goffe, William L., to Xerox Corporation. Xerographic recording apparatus. 3,539,255, 11-10-70, Cl. 355-16.
Goffe, William, to Xerox Corporation. Frost or relief wrinkling of an imaging article comprising an electrically photosensitive layer and a deformable layer. 3,542,545, 11-24-70, Cl. 96-1.1
Goffinet, Bernard: *See—*
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Gogarty, William B., to Marathon Oil Company. Increasing the productivity of gas-driven reservoirs. 3,495,661, 2-17-70, Cl. 166-274.
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Goggins, Joseph. Traction device for crutches. 3,512,541, 5-19-70, Cl. 135-58.
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Gohin, Gilles M.; and Hivert, Andre R., to Office National d'Etudes et de Recherches Aerospatiales. Apparatus for the manufacture of chrome powder. 3,536,309, 10-27-70, Cl. 266-24.
Gohner, Paul, to Bauwerke A.G. Parquet flooring. 3,538,665, 11-10-70, Cl. 52-391.
Gohrbandt, Wilhelm: *See—*
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Goins, Robert R., to Phillips Petroleum Company. Retorting of hydrocarbonaceous solids. 3,499,834, 3-10-70, Cl. 208-11.
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Gokyu, Isao. Parallel cables. 3,500,625, 3-17-70, Cl. 57-139.
Golan, Kenneth F.; Ohaver, David S.; Pearce, Shairyl I.; and Rohweder, Gerald D., to Caterpillar Tractor Company. Transmission hydraulic control. 3,487,851, 1-6-70, Cl. 137-494.
Goland, David Vere, to Gerrard Wire Tying Machines Company Proprietary Limited. Wire tying device. 3,493,015, 2-3-70, Cl. 140-93.6
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Golay, Marcel J. E., to Perkin-Elmer Corporation, The. Field homogenization for a reference sample in a lock-on nuclear magnetic resonance apparatus. 3,510,832, 5-5-70, Cl. 324-0.5
Golay, Marcel J. E., to Perkin-Elmer Corporation, The. Magnetic field control apparatus. 3,515,979, 6-2-70, Cl. 324-0.5
Golbeck, Bernard J.; and Lewandowski, Raymond F., to Oak Electro/Netics Corporation. Switch contact and method of manufacture. 3,531,861, 10-6-70, Cl. 29-622.
Golbeck, Bernard J.; and Williams, John H., to Oak Electro/Netics Corporation. Push button switch mechanism and method of assembly. 3,509,293, 4-28-70, Cl. 200-5.
Golben, Michael, to Minnesota Mining and Manufacturing Company. Mechanical plating. 3,531,315, 9-29-70, Cl. 117-50.
Golber, Myron B., to Armour and Company. Feedback control system for sequencing motors. 3,513,662, 5-26-70, Cl. 62-115.
Gold, Daniel; and Bent, Dennis Herbert, to Crosfield Electronics Limited. Register control systems. 3,497,121, 2-24-70, Cl. 226-2.
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Goldberg, Gerald; Czerwinski, Richard W.; and Thomas, Herschel G., Jr., to Lord Corporation, mesne. Adhesive compositions and method for bonding elastomers. 3,528,943, 9-15-70, Cl. 260-41.
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Goldsmith, Frank Edward, to De Laval Separator Company, The, mesne. Teat cup. 3,550,557, 12-29-70, Cl. 119-14.36
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Goldstein, Theodore P., to Mobil Oil Corporation. Superconducting molecular sieves. 3,509,071, 4-28-70, Cl. 252-512.
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Golemon, Valia S. Zero entry mechanism. 3,494,547, 2-10-70, Cl. 235-60.
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Good, Arthur L., to Robertshaw Controls Company. Pneumatically operated control system and method. 3,508,850, 4-28-70, Cl. 431-2.

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Gorin, Everett; Phinney, John A.; and Reichl, Eric H., to United States of America, Interior, and Consolidation Coal Company. Process for making liquid fuels from coal. 3,523,886, 8-11-70, Cl. 208-8.

Gorkiewicz, Walter; and Wilder, Joseph, to RCA Corporation. Apparatus for forming a beam of light. 3,512,868, 5-19-70, Cl. 350-157.

Gorkiewicz, Walter: *See—*
Wilder, Joseph; and Gorkiewicz, Walter,3,508,809.

Gorlinger, Klaus: *See—*
Futterer, Bodo; Fritschy, Hugo; and Gorlinger, Klaus,3,517,441.

Gorman, Arnold. Garment hanger. 3,543,941, 12-1-70, Cl. 211-4.

Gorman, Edgar T.; and Nelson, Donald D., to Minnesota Mining and Manufacturing Company. System for controlling distribution of electric energy in predetermined intermittent series. 3,497,710, 2-24-70, Cl. 307-41.

Gorman, Francis T., to United States of America, Air Force. Shipping container. 3,500,996, 3-17-70, Cl. 206-46.

Gorman, Frank B.: *See—*
Gabor, Dennis; Bauer, Benjamin B.; and Gorman, Frank B.,3,506,952.

Gorman, Henry. Boat stabilizer. 3,505,968, 4-14-70, Cl. 114-126.

Gorman, James E.: *See—*
Cilino, Frank S.; Gorman, James E.; Green, Geoffrey D.; and Tevonian, Ronald,3,493,730.

Gorman, John E.: *See—*
Burkholder, Wendell E.; Silverstein, Robert M.; Rodin, John O.; and Gorman, John E.,3,501,566.

Gorman, John P.: *See—*
Kestner, Harold R.; and Gorman, John P.,3,493,718.

Gorman, William G., to Sterling Drug Inc. Non-clogging aerosol valve. 3,491,921, 1-27-70, Cl. 222-402.24

Gorman, William J.; Markert, John G.; and Reed, James S., to GMR, Inc. Sanitary disposal unit. 3,529,779, 9-22-70, Cl. 241-38.

Gorman-Rupp Company, The: *See—*
Smith, Edward M., 3,529,908.

Gormley, Joseph: *See—*
Clarke, Charles J., Jr.; Channell, Earl C.; Gormley, Joseph; McKinight, George W.; and Templeton, Leroy N., Jr.,3,522,588.

Gormley, Joseph, to Honeywell Inc. Switching circuitry for isolating an input and output circuit utilizing a plurality of insulated gate magnetic oxide field effect transistors. 3,509,375, 4-28-70, Cl. 307-251.

Gormley, Joseph; and Hogan, James A., to Honeywell, Inc. Electronic process controller having a two part error amplifier. 3,530,389, 9-22-70, Cl. 330-9.

Gormley, Joseph; and Hogan, James A., to Honeywell Inc. Control circuit. 3,540,001, 11-17-70, Cl. 340-172.5

Gorn, Elmer J., to Raytheon Company. Apparatus for thawing of frozen materials. 3,505,490, 4-7-70, Cl. 219-10.55

Gorne, Phillip; and Kramer, Steven H., to Lacy, Gordon S., d/b/a Pacific Research Laboratory. Effluent sampling method and apparatus for a gas chromatographic procedure. 3,540,852, 11-17-70, Cl. 23-259.

Gorodovsky, Alexandr Fedorovich: *See—*
Efimenko, Viktor Ivanovich; and Gorodovsky, Alexander Fedorovich,3,494,203.

Gorodovsky, Alexandr Fedorovich: *See—*
Efimenko, Viktor Ivanovich; Iljunin, Konstantin Konstantinovich; and Gorodovsky, Alexandr Fedorovich,3,528,010.

Gorog, Etienne P., to International Business Machines Corporation. Process and device for coding and decoding digital signals via phase modulation. 3,505,470, 4-7-70, Cl. 178-66.

Goron, Paul C.: *See—*
Scarnato, Thomas J.; Goron, Paul C.; and Morkoski, James,3,517,492.

Gorrafa, Adly Abdel-Moniem, to Du Pont de Nemours, E. I., and Company. Stretch fabrics of polyester-cotton blends. 3,507,609, 4-21-70, Cl. 8-115.7

Gorresen's Pty. Limited:*See—*
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Gorrill, William Sterling; Wilson, Kenneth A.; and Kaye, Murray, to American Chain & Cable Company, Inc., mesne. Control system and printer controlled thereby. 3,496,547, 2-17-70, Cl. 340-172.5

Gorski-Popiel, Jerzy: *See—*
Drew, Anthony John; and Gorski-Popiel, Jerzy,3,546,639.

Gorsky, Egon: *See—*
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Gardel, Robert; and Gorsky, Egon,3,534,496.
Leibowitz, William; DeLise, Frank; Gardel, Robert; and Gorsky, Egon,3,530,616.

Gorsler, Karl-Gunter; Mierswa, Joachim; and Heine, Claus-Dieter, to Deere & Company. Combine detachable header. 3,488,930, 1-13-70, Cl. 56-2.

Gortman, Isadore: *See—*
Alexander, Lewis R.; and Gortman, Isadore,3,538,284.

Gorton, Bert Sorelle; and Sample, Paul Edward, to Du Pont de Nemours, E. I., and Company. Coating composition of ethylene-vinyl acetate copolymer and articles coated therewith. 3,542,712, 11-24-70, Cl. 260-23.

Gorton, Clair A., to United States of America, Air Force. Method of producing metallic yarn. 3,529,343, 9-22-70, Cl. 29-419.

Gorton, Thomas S., Jr.: *See—*
Wenstrom, Richard T.; and Gorton, Thomas S., Jr.,3,528,124.

Gortva, James A.: *See—*
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Gortz, Gunther: *See—*
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Gortz, Norman: *See—*
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Gorzegno, Walter P., to Foster Wheeler Corporation. Natural circulation start-up system for once-through steam generator. 3,504,655, 4-7-70, Cl. 122-406.

Gorzegno, Walter P., to Foster Wheeler Corporation. Flow circuit for division wall. 3,534,713, 10-20-70, Cl. 122-240.

Gorzegno, Walter P.; and Cooper, Jacob, to Foster Wheeler Corporation. All-welded furnace construction. 3,498,270, 3-3-70, Cl. 122-406.

Gosei Chemical Industry Co., Ltd.: *See—*
Itakura, Jo; Tanaka, Hisao; and Ito, Hiroo, 3,549,717.

Goser, Karl, to Siemens Aktiengesellschaft. Word-organized superconductive layer store. 3,504,354, 3-31-70, Cl. 340-173.1

Gosewinkel, Werner: *See—*
Kusch, Theodor; Gosewinkel, Werner; and Stoeck, Georg,3,513,023.

Goshen Manufacturing Co., Inc., The: *See—*
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Goshima, Kazuaki: *See—*
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Goshorn, Larry A.; and Harmon, Sherril A., to General Electric Company. Binary floating-point comparing and selective processing apparatus. 3,536,903, 10-27-70, Cl. 235-168.

Goshorn, Lawrence A., to General Automation, Inc. Printed circuit board with elevated bus bars. 3,491,267, 1-20-70, Cl. 317-101.

Gosling, Claus, to Farbenfabriken Bayer Aktiengesellschaft. Apparatus for the continuous separation of mixtures of substances which melt without decomposition. 3,493,114, 2-3-70, Cl. 210-179.

Gosnell, James L. Dispenser-applicator apparatus for masking tape. 3,536,569, 10-27-70, Cl. 156-527.

Gosnell, Thomas F., Sr.: *See—*
Eckhart, Philip H.; and Gosnell, Thomas F., Sr.,3,525,828.
Pelletier, Fernand F.; and Gosnell, Thomas F.,3,550,459.

Gosney, Warner Barry, to Birmingham Small Arms Company Limited, The. Sampling devices for bulk materials. 3,545,280, 12-8-70, Cl. 73-423.

Gosper, David L.; and Moffitt, Myron L., to Mobil Oil Corporation. Method for the production of biaxially oriented polypropylene film. 3,551,546, 12-29-70, Cl. 264-178.

Goss, Anthony, to Goss Multiple Tools Limited. Hand-operated cutting tools. 3,492,724, 2-3-70, Cl. 30-258.

Goss, Gary J.: *See—*
Rakoczi, Laszlo L.; Keefer, David E.; Goss, Gary J.; and Porcelli, Ernest J.,3,544,969.

Goss Gas, Inc.: *See—*
Swineford, John W., 3,503,284.
Yerkins, Stephen J., 3,540,656.

Goss, Harry Franklin, to Eastman Kodak Company. Process for recovering metal compounds. 3,536,443, 10-27-70, Cl. 23-87.

Goss, Jack P., to Schlumberger Technology Corporation. Methods and apparatus for procuring formation samples from well bores. 3,517,756, 6-30-70, Cl. 175-4.

Goss, James W. Mirror or picture hanger. 3,501,124, 3-17-70, Cl. 248-495.

Goss, Jonathan; and Westlind, Dennis E., to Sperry Rand Corporation. Data and control character discrimination scheme for digital computer system. 3,516,073, 6-2-70, Cl. 340-172.5

Goss, Lorane C., Jr.: *See—*
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Goss Multiple Tools Limited: *See—*
Goss, Anthony, 3,492,724.

Goss, R. E., Inc.: *See—*
Goss, Richard E., 3,518,991.

Goss, Richard E., to Goss, R. E., Inc., mesne. Medical canopy access method. 3,518,991, 7-7-70, Cl. 128-191.

Goss, Robert C. Ribbon dispenser. 3,494,518, 2-10-70, Cl. 225-34.

Gossard, H. W., Co., The: *See—*
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Gossel, Dieter, to U.S. Philips Corporation, mesne. Apparatus for tuning musical instruments. 3,509,454, 4-28-70, Cl. 324-79.

Gossel, Felix: *See—*
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Gossen, P., & Co. G.m.b.H.: *See—*
Peter, Helmut; Schmidt, Gerhard; and Wirth, Karl-Heinz, 3,523,740.
Pfaffenberger, Erwin, 3,529,897.
Schmitt, Helmut, 3,516,750.
Schmitt, Helmut, 3,528,350.

Gosser, Lawrence Wayne, to Du Pont de Nemours, E. I., and Company. Hydrogenation of cyclododecatriene to cyclododecene. 3,499,050, 3-3-70, Cl. 260-666.

Gosser, Lawrence Wayne, to Du Pont de Nemours, E. I., and Company. Hydrogenation of cyclododecatriene. 3,513,210, 5-19-70, Cl. 260-666.

Gossfeld, Walter A.: *See—*
Monigal, Robert E.; Eck, Robert N.; Gossfeld, Walter A.; and Swanson, William C.,3,548,399.

Gossie, Mijo Albert; and Wisner, William R., to Corning Glass Works. Method for producing hollow glass spheres. 3,537,833, 11-3-70, Cl. 65-21.

Gosswiller, Earl W., to Federal Sign and Signal Corporation. Bell mechanism having plural gongs adapted to be mounted without adjustment. 3,504,365, 3-31-70, Cl. 340-396.

Gostling, Peter Eric, to Kwikform Limited. Scaffold element for use in the construction of scaffolding structures. 3,490,189, 1-20-70, Cl. 52-648.

Gostomski, Frank T. Camper holddown bracket. 3,503,647, 3-31-70, Cl. 296-23.

Gosudarstvenny Nauchno-Issledovatelsky elektrotekhnichesky Institut: *See—*
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Gosudarstvenny Nauchno-Issledovatelsky I Proektny Institut Neftyanogo Mashinostroenia: *See—*
Roschupkin, Vladimir Ivanovich; Zalkin, Semen Lvovich; and Lovchev, Stanislav Vasilievich, 3,532,029.

Gosudarstvenny Vsesojuzny Institut po Proektirovaniju Predpriaty Koksokhimicheskoi Promyshlennosti: *See—*
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Gosudatstvenny Vsesojuzny Institut Po Proektirovaniju Predpriaty Koksokhimicheskoi Promyshlennosti: *See—*
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Gotcher, Lee C.'High dive' diving hurdle. 3,497,212, 2-24-70, Cl. 272-59.

Gothberg, Karl Evald Andreas, to Aktiebolaget Svenska Kullagerfabriken. Rolling bearing unit. 3,519,316, 7-7-70, Cl. 308-187.1

Gothe, Allyn L.: *See—*
Fredrickson, Dennis L.; and Gothe, Allyn L.,3,497,794.

Gothel, Herbert; and Feichtinger, Hans, to Ruhrchemie Aktiengesellschaft. Synthetic lubricants containing trimethylol-alkane-diorthosilicic acid esters. 3,514,402, 5-26-70, Cl. 252-49.6

Gothel, Herbert; Feichtinger, Hans; and Noeske, Heinz, to Ruhrchemie Aktiengesellschaft. Synthetic lubricants and power transmission fluids. 3,538,001, 11-3-70, Cl. 252-49.6

Gotley, Paul, to Electrical Remote Control Company Limited. Soldering iron. 3,551,639, 12-29-70, Cl. 219-241.

Goto, Eizo, to Tokyo Shibaura Electric Co., Ltd. Glass sealed metal bridge support for electric tubes or bulbs and method for manufacturing the same. 3,498,776, 3-3-70, Cl. 65-59.

Goto, Eizo, to Tokyo Shibaura Electric Co., Ltd. Process for sealing metal body to glass body. 3,515,530, 6-2-70, Cl. 65-43.

Goto, Eizo, to Tokyo Shibaura Electric Co., Ltd. Method and apparatus for sealing with glass portions to be sealed. 3,522,027, 7-28-70, Cl. 65-40.

Goto, Eizo, to Tokyo Shibaura Electric Co., Ltd. Method of bonding parts together by means of a molten glass composition. 3,522,028, 7-28-70, Cl. 65-40.

Goto, Eizo, to Tokyo Shibaura Electric Co., Ltd. Electrically-heated glass-melting apparatus. 3,524,918, 8-18-70, Cl. 13-6.

Goto, Eizo, to Tokyo Shibaura Electric Co., Ltd. Apparatus for melting glass. 3,527,590, 9-8-70, Cl. 65-337.

Goto, Eizo. Method of manufacturing a reflector type lamp. 3,543,361, 12-1-70, Cl. 29-25.13

Goto, Eizo, to Tokyo Shibaura Electric Co., Ltd. Method for manufacturing laminated glass plates. 3,544,294, 12-1-70, Cl. 65-40.

Goto, Eizo, to Tokyo Shibaura Electric Co., Ltd. Method for manufacturing a heat insulating vessel. 3,550,251, 12-29-70, Cl. 29-455.

Goto, Eizo; and Nakayama, Yonekichi, to Tokyo Shibaura Electric Co., Ltd. Method sealing a tube opening with a glass membrane. 3,490,889, 1-20-70, Cl. 65-43.

Goto, Hajime. Speedy operative circuit protector. 3,512,111, 5-12-70, Cl. 335-153.

Goto, Kenichi: *See—*
Abe, Toshio; Nishi, Yoshio; and Goto, Kenichi,3,501,637.

Goto, Kenji, to Toyota Jidosha Kogyo Kabushiki Kaisha. Fuel system. 3,503,594, 3-31-70, Cl. 261-41.

Goto, Kenjiro, to Mansei Kogya Kabushiki Kaisha. Liquified gas fuel injection valve. 3,493,019, 2-3-70, Cl. 141-330.

Goto, Kenjiro, to Mansei Kogyo Kabushiki Kaisha. Electric gas lighter with a manually operable piezoelectric ignition device. 3,506,386, 4-14-70, Cl. 431-255.

Goto, Kenjiro, to Mansei Kogyo Kabushiki Kaisha. Electric gas lighter with manually operable piezoelectric ignition device. 3,521,987, 7-28-70, Cl. 431-255.

Goto, Kunio, to Victor Company of Japan, Limited. System for removing irregularities in rotation from synchronous motor. 3,500,157, 3-10-70, Cl. 318-179.

Goto, Michio: *See—*
Tsunawaki, Shigemitsu; and Goto, Michio,3,496,149.

Goto, Mutuo: *See—*
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Goto, Naohiro; and Shidara, Keiichi, to Japan Broadcasting Corporation. Photoconductive target comprising aluminum, selenium and arsenic triselenide layers. 3,517,241, 6-23-70, Cl. 313-65.

Goto, Rikio: *See—*
Katayama, Shizuo; Goto, Rikio; Nita, Toshiyuki; and Ogawa, Satoshi,3,514,311.

Goto, Tadashi. Motion picture film editor or viewer. 3,507,569, 4-21-70, Cl. 352-129.

Goto, Tokju: *See—*
Tsuruta, Motohiro; Kimura, Hiroshiro; Koshimo, Akio; Nara, Hirohisa; Goto, Tokju; and Amemiya, Kunio,3,522,642.

Goto, Tokuju: *See—*
Tsuruta, Motohiro; Kimura, Hiroshiro; Koshimo, Akio; Nara, Hirohisa; Goto, Tokuju; and Amemiya, Kunio,3,538,563.

Goto, Toshinao: *See—*
Shinohara, Isao; Tsuchida, Eishun; Goto, Toshinao; Okuno, Zenijiro; Tashiro, Isao; Kawamura, Eiichi; Nakamura Makoto; and Muto, Kenkichi,3,503,881.

Gotoh, Keishi: *See—*
Tanaka, Tatsuo; Gotoh, Keishi; and Kajiura, Hiroshi,3,494,217.

Gotou, Masahiro: *See—*
Fujiyasu, Tatsuo; Hara, Koichi; Gotou, Masahiro; and Nagatani, Takashi,3,502,870.

Gotschewski, Paul O.; and Chinlund, Joseph F., to SCM Corporation. Perforator. 3,523,641, 8-11-70, Cl. 234-108.

Gotshall, William W., to Marathon Oil Company. Process for controlling the modulus of an elastomeric composition which contains partially calcined coke. 3,493,532, 2-3-70, Cl. 260-41.5

Gott, Hans: *See—*
Ritter, Gerhard; Gott, Hans; and Ritter, Josef,3,497,659.

Gott, Hans; Ritter, Josef; Ritter, Gert; and Ritter, Klaus, to EVG Entwicklungs und Verwertungs-Gesellschaft m.b.H. Mesh welding machine. 3,515,177, 6-2-70, Cl. 140-112.

Gott, Paul G.: *See—*
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Gottauf, Georg, to Stahlgruber Otto Gruber & Company. Spike for motor vehicle tires. 3,545,515, 12-8-70, Cl. 152-210.

Gotte, Ernst: *See—*
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Kirstahler, Alfred; Jakobi, Gunter; and Gotte, Ernst,3,549,543.

Gottesman, Roy T.: *See—*
Minieri, Pasquale P.; and Gottesman, Roy T.,3,495,012.

Gottesman, Roy T.; and Sidl, Henri, to Tenneco Chemicals, Inc. Purification of organic acids. 3,530,174, 9-22-70, Cl. 260-521.

Gottfried Bischoff Bau Komp. Gasreinigungs- und Wasserruckkuhlanlagen K.G., Firma: *See—*
Hoff, Hans, 3,497,194.

Gottfried, Max; and Tenteris, Ansis U., to Jobst Institute, Inc., The. Automatic rotating tourniquet control and alarm. 3,527,207, 9-8-70, Cl. 128-24.

Gottfried, Paul. Ski bindings. 3,537,719, 11-3-70, Cl. 280-11.35

Gottfried, Robert E.; and Dunbridge, Barry, to TRW Inc. Analog multiplexing system using a separate comparator for each analog input. 3,535,458, 10-20-70, Cl. 179-15.

Gottfried, William A., to RCA Corporation. Double photoresist processing. 3,506,441, 4-14-70, Cl. 96-36.2

Gottlieb, Arnold J.; and Majesko, George A., to Driver, Wilbur B., Company. Ferrous alloy containing nickel cobalt and chromium. 3,516,824, 6-23-70, Cl. 75-128.

Gottlieb, Steven, to Gorresen's Pty. Limited. Production of cement clinker. 3,495,811, 2-17-70, Cl. 263-53.

Gottling, James G.: *See—*
Aponick, Anthony A., Jr.; and Gottling, James G.,3,509,432.

Gottschald, Erika: *See—*
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Gottschald, Rudolf,3,537,734.
Gottschald, Rudolf,3,547,460.

Gottschald, Rudolf, deceased (by Gottschald, Erika; heir), to Ehrenreich, A., & Cie. Ball joint. 3,506,290, 4-14-70, Cl. 287-87.

Gottschald, Rudolf, deceased (by Gottschald, Erika; heiress). Ball joint. 3,537,734, 11-3-70, Cl. 287-87.

Gottschald, Rudolf, deceased (by Gottschald, Erika; heir), to Ehrenreich, A., & Cie. Steering gear. 3,547,460, 12-15-70, Cl. 280-95.

Gottschald, Rudolf, to Ehrenreich, A., & Cie. Processes and devices for the cutting or machining and burnishing of ball surfaces of workpieces. 3,494,013, 2-10-70, Cl. 29-90.

Gottschald, Rudolf, to Ehrenreich, A., & Cie. Steering rods one end of which being joint connected to a tie rod and the other end being ball joint connected to the steering arm of a wheel. 3,494,221, 2-10-70, Cl. 74-586.

Gottschald, Rudolf, to Messrs. A. Ehrenreich & Cie. Ball joints, especially for tensile loads. 3,494,644, 2-10-70, Cl. 287-87.

Gottschald, Rudolf, to Ehrenreich, A., & Cie. Ball joints. 3,506,288, 4-14-70, Cl. 287-87.

Gottschald, Rudolf, to Ehrenreich, A., & Cie. Bellows packings for universally movable joints, especially for ball joints. 3,506,289, 4-14-70, Cl. 287-87.

Gottschald, Rudolf, to Ehrenreich, A., & Cie. Elastic bellow packings for universally movable joints, and more particularly for ball joints. 3,547,453, 12-15-70, Cl. 277-212.

Gottschald, Rudolf, to Ehrenreich, A., & Cie. Bellow packings for universally movable joints, especially for ball joints. 3,547,473, 12-15-70, Cl. 287-87.

Gottschalk, Robert E.; and Bennett, Lorin, to Panavision, Incorporated. Counterbalancing spacer for film magazine and hand held motion picture camera. 3,490,833, 1-20-70, Cl. 352-72.

Gottschalk, Winston W., to Armstrong Cork Company. Apparatus for winding rolls of sheet material. 3,493,187, 2-3-70, Cl. 242-68.2

Gottschall, Gernot, to Morat, Franz, G.m.b.H. Stop motion for a knitting machine. 3,509,739, 5-5-70, Cl. 66-157.

Gottschlich, Alois; and Leverenz, Klaus, to Farbenfabriken Bayer Aktiengesellschaft. 2,6-Dicyano-4-nitroaniline and preparation thereof. 3,507,903, 4-21-70, Cl. 260-465.

Gottsmann, Werner Walther: *See—*
Schubert, Harry Gunter; and Gottsmann, Werner Walther,3,541,813.

Gottzein, Eveline; Klamka, Norbert; Bittner, Helmut; and Schwake, Hermann, to Bolkow Gesellschaft mit beschrankter Haftung. Method of and apparatus for controlling the transverse acceleration and roll damping of steerable aerodynamic bodies. 3,540,678, 11-17-70, Cl. 244-3.2

Gotz, Elmar; and Boese, Peter, to Licentia Patent-Verwaltungs-G.m.b.H. Digital curve computer for machine tool systems. 3,524,049, 8-11-70, Cl. 235-156.

Gotz, Friederich; and Jacoby, Gunter, to Siemens Aktiengesellschaft. Device for limiting the short-circuit energy in electrolytic metal-shaping apparatus. 3,524,804, 8-18-70, Cl. 204-224.

Gotze, Christian, to Agfa-Gevaert Aktiengesellschaft. Photographic camera with illuminating arrangement. 3,511,144, 5-12-70, Cl. 95-10.

Gotze, Gotthold: *See—*
Wehr, Georg; and Gotze, Gotthold,3,515,185.

Gotze, Johannes; Bockly, Erich; and Seidel, Bernhard, to Agfa-Gevaert Aktiengesellschaft. Merocyanine dye-sensitized photographic materials comprising silver halide emulsion layers containing azo-dyes. 3,520,693, 7-14-70, Cl. 96-99.

Gotze, Werner,: *See—*
Arendt, Ilse; Wappler, Peter; Gotze, Werner,; and Schmidt, Peter,3,538,235.
Gerland, Heinz; and Gotze, Werner,3,516,859.

Goudin, Robert; and Bunel, Jacques, to U.S. Philips Corporation, mesne. Mechanical driving device. 3,521,500, 7-21-70, Cl. 74-231.

Goue, Bernard: *See—*
Charbonnier, Jean-Claude; and Goue, Bernard,3,547,699.

Gough, Alfredo A., to Ruffin Industries, Inc. Electronic water purifier. 3,498,457, 3-3-70, Cl. 210-85.

Gough, Arthur, to Imperial Chemical Industries Limited. Oligomerisation of olefines. 3,523,983, 8-11-70, Cl. 260-683.15

Gough, Dick Valentine, to Plough (Contracts) Limited. Liquid separators. 3,542,194, 11-24-70, Cl. 210-90.

Gough, John A. Training aid. 3,530,592, 9-29-70, Cl. 35-9.

Gough, Stanley T. D.; and Napier, Roger P., to Mobil Oil Corporation. Benzyl halides as post-emergence herbicides. 3,497,346, 2-24-70, Cl. 71-105.

Gough, Vernon E.; Roberts, Glyn B.; and Holmes, Thomas, to Dunlop Company Limited, The. Pneumatic tyres. 3,532,147, 10-6-70, Cl. 152-209.

Gough, Vernon Eric, to Dunlop Company Limited, The. Pneumatic tires. 3,495,645, 2-17-70, Cl. 152-330.

Gougoulas, Harry K. Vehicle cleaning apparatus. 3,520,013, 7-14-70, Cl. 15-21.

Gouhier, Pierre: *See—*
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Gouillou, Roger L., to Office National d'Etudes et de Recherches Aerospatiales. Apparatus for measuring high-frequency impedances. 3,514,583, 5-26-70, Cl. 235-88.

Gouilloud, Michael Marie Albert, to Societe de Prospection Electrique Schlumberger S.A. Methods and apparatus for investigating earth formations including multiple frequency operation and phase correction and quadrature phase cancellation using a magnetic core. 3,496,455, 2-17-70, Cl. 324-6.

Gouilloud, Michel Marie Albert; and Levy, Andre, to Societe de Prospection Electrique Schlumberger, S.A. High frequency electromagnetic well logging methods and apparatus. 3,551,797, 12-29-70, Cl. 324-6.

Goujon, Ivan; and Coles, John, to Goujon (Paper Togs) Ltd. Panties. 3,488,778, 1-13-70, Cl. 2-224.

Goujon (Paper Togs) Ltd.: *See—*
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Graff, Roderich W. Method and apparatus for absorption of molecules from fluids. 3,487,608, 1-6-70, Cl. 55-33.

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Graffy, Thomas F., to I-T-E Imperial Corporation. Flange breakaway fitting. 3,545,793, 12-8-70, Cl. 285-158.

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Graham, Donald E., to General Motors Corporation. Speed control system for alternating current induction motors. 3,506,899, 4-14-70, Cl. 318-227.

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Graham, James W., to Adams-Russell Co., Inc. Cyclic switching network for radio-frequency signals. 3,537,035, 10-27-70, Cl. 333-7.

Graham, James W.; Maddox, Charles F.; Powledge, Jerry L.; and Valukonis, Jonas, to Ford Motor Company. Frame structure for a motor vehicle. 3,520,552, 7-14-70, Cl. 280-106.

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Graham, Walter R., to Upjohn Company, The. Animal drinking valve with two-piece stem. 3,513,811, 5-26-70, Cl. 119-72.5

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Gram, Erwin; Kastl, Peter; and Schretzmayer, Josef, to Ospag, Osterreichische Sanitar-Kermik- und Porzellan-Industrie Aktiengesellschaft. Apparatus for molding ceramic articles. 3,550,224, 12-29-70, Cl. 25-29.
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Granieri, George J., to American Standard Inc. Burner ignition system. 3,510,237, 5-5-70, Cl. 431-79.
Granieri, George J., to American Standard Inc. Control network for a bilateral thyristor. 3,526,003, 8-25-70, Cl. 307-252.
Granieri, George J., to American Standard, Inc. Control circuit with line voltage compensation. 3,530,354, 9-22-70, Cl. 318-345.
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Grankowski, Eugene E.; and Pappas, Lambros, to Verson Allsteel Press Company. Hydraulic press. 3,545,241, 12-8-70, Cl. 72-63.
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Granowitz, Jack Marks: *See—*
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Granqvist, Carl-Erik, to AGA Aktiebolag. Digital delay measuring instrument employing Vernier principle. 3,488,585, 1-6-70, Cl. 324-68.
Granqvist, Carl-Erik, to AGA Aktiebolag. Digital angle measuring apparatus. 3,536,406, 10-27-70, Cl. 356-152.
Granryd, Eric G. U., to Gas Developments. Heat-actuated regenerative compressor system. 3,491,554, 1-27-70, Cl. 62-498.
Granryd, Eric G. U., to Gas Developments Corporation. Cooling process employing a heat-actuated regenerative compressor. 3,521,461, 7-21-70, Cl. 62-115.
Grant, Alexander J., to Simmonds Precision Products, Inc., mesne. Electrical measuring apparatus including a bridge circuit and a meter having a rotor and three pole stator. 3,504,284, 3-31-70, Cl. 324-140.
Grant, Arthur W.; Welligan, Casmier J.; and Raby, John J., to Canadian Pacific Railway Company. Hot box sensor. 3,540,459, 11-17-70, Cl. 137-74.
Grant, Cuthbert, to Markel Electric Products, Inc. Finned surface electrical heating unit and method of making same. 3,526,958, 9-8-70, Cl. 29-611.
Grant, Daniel J., to United States of America, National Aeronautics and Space Administration. Passively regulated water electrolysis rocket engine. 3,490,235, 1-20-70, Cl. 60-200.
Grant, David C., Jr., to United Aircraft Corporation. Optical modulator. 3,528,746, 9-15-70, Cl. 356-152.
Grant, David Walter, to Coal Tar Research Association, The. Method for producing tubular glass structures. 3,533,767, 10-13-70, Cl. 65-2.
Grant, Edward D., Jr., to Chemetron Corporation, mesne. Controlled discharge means for reaction apparatus. 3,525,596, 8-25-70, Cl. 23-290.
Grant, Eugene F.: *See—*
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Grant, Frederic F., to Astro-Science Corporation, mesne. Incremental recorder. 3,500,432, 3-10-70, Cl. 346-74.
Grant, Gerald E.; Poplawski, Eugene M.; and Schubert, George E., to Caterpillar Tractor Company. Drive train brake. 3,526,302, 9-1-70, Cl. 188-170.
Grant, Howard E. Car wash brush. 3,500,488, 3-17-70, Cl. 15-21.
Grant, Howard E. Automobile side and rear window washer. 3,540,069, 11-17-70, Cl. 15-21.
Grant, Howard E. Automobile wheel washer. 3,541,627, 11-24-70, Cl. 15-21.
Grant, Howard L., to United States of America, Navy. Alloy deterring shunt for conical tungsten evaporation sources. 3,538,305, 11-3-70, Cl. 219-272.
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Grant, Norman H.; Clark, Donald E.; and Alburn, Harvey E., to American Home Products Corporation. Synthetic method for preparing penicillins. 3,538,083, 11-3-70, Cl. 260-239.1
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Grant, Peter M., to Eastman Kodak Company. Catalytic process for converting tocopherol to tocopheryl mono succinate. 3,538,119, 11-3-70, Cl. 260-345.5
Grant, Ralph Maynard, to GCOptronics, Inc., mesne. Holographic method of determining properties of materials. 3,545,259, 12-8-70, Cl. 73-69.
Grant, Robert C.; and Miller, Willis D., to Caterpillar Tractor Company. Filter assembly. 3,524,550, 8-18-70, Cl. 210-232.
Grant, Robert H., to GCOptronics, Inc. Apparatus for forming holograms. 3,547,532, 12-15-70, Cl. 355-2.
Grant, Ronald D., to JFD Electronics Corporation, mesne. Multiple tooth log-periodic trapezoidal array. 3,550,143, 12-22-70, Cl. 343-792.5
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Grant, Walter F. Cable tab cutter. 3,518,757, 7-7-70, Cl. 30-91.1
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Grantham, Donald Ralph, to Coulter Electronics, Inc. Blood sample handling apparatus. 3,501,131, 3-17-70, Cl. 259-55.
Grantham, Leroy F., to North American Rockwell Corporation. Carbon oxide regenerant for sulfur production. 3,551,108, 12-29-70, Cl. 23-224.
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Grantham, Max Edward, to Tecalemit (Engineering) Limited. Fluid pump. 3,518,029, 6-30-70, Cl. 417-211.
Grantham, Max Edward, to Tecalemit (Engineering) Limited. Fluid pump. 3,524,715, 8-18-70, Cl. 417-471.
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Granzow, Daniel B.; and Ellis, James B., to Addressograph-Multigraph Corporation. Pneumatic delivery device. 3,502,407, 3-24-70, Cl. 355-3.
Granzow, Daniel B.; Gawron, Stanley A.; and Graff, William P., to Addressograph-Multigraph Corporation. Electrostatic reproduction method. 3,533,784, 10-13-70, Cl. 96-1.
Granzow, Daniel B.; Klessig, Karl K.; and Pleitt, Richard J., to Addressograph-Multigraph Corporation. Roller charging apparatus. 3,521,126, 7-21-70, Cl. 317-3.
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Grasenick, Fritz; Geymayer, Wolfgang; and Aldrian, Adolf. Apparatus for preparing embedded specimens for examination with an optical or electron microscope. 3,536,911, 10-27-70, Cl. 250-49.5

Graser, Earl J., to Olinkraft, Inc. Automatically adjustable punch lock device. 3,508,699, 4-28-70, Cl. 229-40.

Graser, Michael, Jr., to Technical Operations, Incorporated. Image processing system and method. 3,546,374, 12-8-70, Cl. 178-5.4

Graser, Michael, Jr., to Technical Operations, Incorporated. Optical display or viewing systems with coaxial diffracted and non-diffracted channels. 3,549,238, 12-22-70, Cl. 350-162.

Graser, Michael, Jr.; and Vanderlaan, Henry J., to General Electric Company. Deformable medium projection apparatus. 3,538,249, 11-3-70, Cl. 178-7.5

Grashorn, Ingo, to Bemberg, J. P., Aktiengesellschaft. Carrying bag. 3,490,507, 1-20-70, Cl. 150-1.

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Grasselli, Robert K.; and Callahan, James L., to Standard Oil Company, The (Ohio). Diguanamines. 3,501,470, 3-17-70, Cl. 260-249.9

Grasselli, Robert K.; and Callahan, James L., to Standard Oil Company, The (Ohio). Diguanamine-aldehyde condensation products. 3,546,174, 12-8-70, Cl. 260-67.6

Grasselli, Robert K.; and Friederich, Maria S., to Standard Oil Company, The (Ohio). Ammoxidation of propylene or isobutylene to acrylonitrile or methacrylonitrile. 3,544,616, 12-1-70, Cl. 260-465.3

Grasselli, Robert K.; and Friedrich, Maria S., to Standard Oil Company, The (Ohio). Ammoxidation of propylene or isobutylene to acrylonitrile or methacrylonitrile. 3,542,842, 11-24-70, Cl. 260-465.3
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Grassmann, Wolfgang; and Hannig, Kurt. Apparatus for performance of carrier-free, continuous electrophoresis in vertical cells. 3,519,549, 7-7-70, Cl. 204-299.

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Gratsch, Jack M. Vehicle brake system. 3,495,880, 2-17-70, Cl. 303-21.

Gratzmuller, Jean Louis. Permanent magnet rotor for an electric machine. 3,513,341, 5-19-70, Cl. 310-156.

Gratzmuller, Jean Louis. Electrical circuit breaker. 3,531,609, 9-29-70, Cl. 200-150.

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Grau, Gerard: *See—*
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Grau, Heinrich W. H. Method and apparatus for making knitted imitation fur. 3,494,150, 2-10-70, Cl. 66-86.

Grau, Lorraine Jensen; and Collins, Neil S. In-wall identification label mounting for catalogue card trays and the like. 3,527,515, 9-8-70, Cl. 312-234.1

Graubert, Seth: *See—*
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Graumann, John L.; and Major, Alfred N., to Whitlock Manufacturing Company, The. Method and apparatus for drying urea solutions. 3,491,821, 1-27-70, Cl. 159-13.

Gravatt, Kenneth W. Golf-ball warmer. 3,497,676, 2-24-70, Cl. 219-521.

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Graver, Richard B.; and Hudak, Stephen F., to Ashland Oil & Refining Company. Oil modified acidic polyesters and coating compositions thereof. 3,520,841, 7-21-70, Cl. 260-22.

Graversen, Curtis L., to Omark Industries, Inc. Abrasive strip top sharpeners. 3,529,495, 9-22-70, Cl. 76-25.

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Graves, Gail W.; and Hester, Clarence H., to Dore', John L., Co. Corrosion resistant ball check valve. 3,498,315, 3-3-70, Cl. 137-375.

Graves, Howard K. Musical instrument soundboard system. 3,511,125, 5-12-70, Cl. 84-192.

Graves, Jewel; and Burkholder, Harvey Z., to U.S. Industries, Inc., mesne. Support means for poultry cages. 3,521,603, 7-28-70, Cl. 119-17.

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Gravlee, Leland C. Apparatus for circulating a fluid within a body cavity. 3,527,203, 9-8-70, Cl. 128-2.

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Gray, Allan Poe, to Mallinckrodt Chemical Works, mesne. N-alkylsulfinylalkyl-and sulfonylalkyl-1,2,3,4- tetrahydroisoquinolines. 3,549,640, 12-22-70, Cl. 260-283.

Gray, Bronis G., to Air Reduction Company, Incorporated. Method of processing metal-bearing charge in a furnace having oxy-fuel burners in furnace tuyeres. 3,547,624, 12-15-70, Cl. 75-42.

Gray, Burton J., to American Home Products Corporation. Package. 3,504,788, 4-7-70, Cl. 206-42.

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Gray, Charles L., Jr.; and Ramsey, Robert B., Jr., to Du Pont de Nemours, E. I., and Company. Solvent recovery process and apparatus. 3,551,189, 12-29-70, Cl. 177-102.

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Gray, Donald M., to W. G. B. Oil Clarifier, Inc. Valve construction. 3,500,857, 3-17-70, Cl. 137-516.25

Gray, Dudley Justin. Boat suspension system. 3,517,632, 6-30-70, Cl. 114-61.

Gray, Earl H., to Phillips Petroleum Company. Temperature control in electrochemical conversion processes. 3,551,307, 12-29-70, Cl. 204-59.

Gray, Fester. Baseball bat. 3,516,669, 6-23-70, Cl. 273-72.

Gray, Forest D., to Tenneco Oil Company. Apparatus for supplying water to a steam generator. 3,515,209, 6-2-70, Cl. 166-62.

Gray, Forest D., to Tenneco Oil Company. Apparatus for producing water from a well. 3,543,851, 12-1-70, Cl. 166-106.

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Gray, Frederick William, to Colgate-Palmolive Company. Bleaching packets. 3,528,921, 9-15-70, Cl. 252-99.

Gray, Gary; Frautnick, James C.; and Gleeson, William J. Satellite tracking calculator. 3,535,790, 10-27-70, Cl. 33-1.

Gray, George William, to RCA Corporation. Oscillating voltage range indicator. 3,551,696, 12-29-70, Cl. 307-235.

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Gray, Jack N.; Clarkson, Robert J.; and Miller, Robert, to Uniroyal, Inc. Quick drying Lewis-acid and basic polymer modified polyolefin yarn. 3,507,607, 4-21-70, Cl. 8-100.

Gray, James R. Vapor dispenser means. 3,550,853, 12-29-70, Cl. 239-44.

Gray, James T., to General Motors Corporation. Automatic bucket positioner. 3,506,149, 4-14-70, Cl. 214-764.

Gray, John; and Anderson, Gene W., to Liquitrol Systems, Inc. Control system for liquid pressure booster systems. 3,511,579, 5-12-70, Cl. 417-6.

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Gray, Michael T., to Raytheon Education Company, mesne. Teaching system. 3,491,464, 1-27-70, Cl. 35-48.

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Gray, Oscar S., to Gray Industries, Inc. Method and apparatus for controlling microorganisms and enzymes. 3,494,723, 2-10-70, Cl. 21-54.

Gray, Oscar S., to Gray Industries, Inc. Method and apparatus for controlling microorganisms and enzymes. 3,494,724, 2-10-70, Cl. 21-54.

Gray, Peter R.; and Le Roy, Billy J., to Phillips Petroleum Company. Preparation of iron carbide (Fe_3C). 3,494,738, 2-10-70, Cl. 23-208.

Gray, Peter V., to General Electric Company. Semiconductor devices having asymmetrically conductive junction. 3,514,346, 5-26-70, Cl. 148-33.2

Gray, Philip W., to Avco Corporation. Labyrinth-sling seal. 3,532,399, 10-6-70, Cl. 308-36.4

Gray, Ralph R. Method of construction for streets and the like. 3,518,924, 7-7-70, Cl. 94-22.

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Gray, Robert D., to Gray Chemical, Inc. Process for preparing dry flavoring material from molluska. 3,529,975, 9-22-70, Cl. 99-140.

Gray, Robert L., to States Steamship Company. System for engaging cargo containers. 3,501,193, 3-17-70, Cl. 294-67.

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Gray, Russell M., to Reynolds, Gardner. Sway control device for trailers. 3,502,351, 3-24-70, Cl. 280-446.

Gray, Samuel A., to Bell Aerospace Corporation. Electromagnetic force motor having linear output characteristics. 3,517,360, 6-23-70, Cl. 335-230.

Gray, Theodore F., Jr.; and Carroll, Max L., Jr., to Eastman Kodak Company. Thermoplastic polyester composition containing organic ester mold release agent. 3,516,957, 6-23-70, Cl. 260-22.

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Gray, Vernon H.; and Joslyn, Allan W., to United States of America, National Aeronautics and Space Administration. Boiler for generating high quality vapor. 3,508,402, 4-28-70, Cl. 60-108.

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Gray, William T.; Ross, Raymond W.; and Williams, Albert J., Jr., to Leeds & Northrup Company. Analog centesimal recorders. 3,512,166, 5-12-70, Cl. 346-23.

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Gray, William W.; and Wagner, Richard J., to Hughes Aircraft Company. Apparatus for mounting miniature electronic components. 3,506,878, 4-14-70, Cl. 317-100.

Graybill, Clinton L., to Graybill Industries, Inc. Rotary two-cycle engine. 3,517,651, 6-30-70, Cl. 123-44.

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Graybill, Paul J. Oil rectifier apparatus and process. 3,529,719, 9-22-70, Cl. 210-73.

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Grayson, Richard D., to International Telephone and Telegraph Corporation. Magnetic valve with lost motion connection. 3,528,639, 9-15-70, Cl. 251-75.

Grayson, Wilbur Charles. Method of directing fish seining operations. 3,541,717, 11-24-70, Cl. 43-4.5

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Greco, Nicholas P., to Koppers Company, Inc.Process for the preparation of catechol and 2,2'- dihydroxydiphenylamine or lower alkyl ethers thereof. 3,530,186, 9-22-70, Cl. 260-571.
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Greene, Phillip A.; Buyalos, Edward J.; and Scheirer, David E.; to Allied Chemical Corporation. Dehydrodimerization process. 3,494,956, 2-10-70, Cl. 260-465.8
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Gregoire, Gerald L., to Gregoire Flowers, Inc. Central grading system for cut flowers. 3,517,809, 6-30-70, Cl. 209-122.

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Gregoire, Resta S., to Gregoire Engineering & Development Co. Total lock building structure. 3,543,456, 12-1-70, Cl. 52-92.

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Gregory, Charles E., to Jered Industries, Inc. Control valve assembly for a deck elevator engine having wave action compensation. 3,528,527, 9-15-70, Cl. 187-26.

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Grenier, Joseph Mederic, to Chemcell Limited. Melt extrusion process and spinnerettes. 3,507,947, 4-21-70, Cl. 264-176.

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Gresham, John Thomas, to FMC Corporation. Di(alkylmercuri)alkanes. 3,496,202, 2-17-70, Cl. 260-431.

Gresham, Ralph R., 1/2 to Lowe, Ralph L. Silicate binder and process for making the same. 3,498,807, 3-3-70, Cl. 106-74.

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Gress, Friedrich; Neumann, Werner; and Schmidt, Erwin, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Baking enamels based on aqueous binder formulations. 3,539,485, 11-10-70, Cl. 260-29.3

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Grey, Donald M.; Butler, Lee D.; and Welker, Jerry W., to Sperry Rand Corporation. Bale wagon having single bale unloading means. 3,515,291, 6-2-70, Cl. 214-6.

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Grice, Charles Fitzhugh, to Schlumberger Technology Corporation. Multiple detector submarine radioactivity logging system. 3,546,456, 12-8-70, Cl. 250-83.3

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Griebstein, William J.; Grabenstetter, Robert J.; and Widder, James S., to Procter & Gamble Company, The. Stannous salts of polyphosphonic acids. 3,549,677, 12-22-70, Cl. 260-429.7

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Griffey, Donald E., to Motorola, Inc. Dynamic Barkhausen oscillation suppression. 3,502,940, 3-24-70, Cl. 315-27.

Griffey, Donald E., to Motorola, Inc. Cathode ray tube protection circuit. 3,535,445, 10-20-70, Cl. 178-7.5

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Griffith, Arvon M., to Abex Corporation. Friction elements. 3,505,446, 4-7-70, Cl. 264-236.

Griffith, David B. Filter means. 3,496,946, 2-24-70, Cl. 131-10.5

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Griffith, Russell K.; Jones John F.; and Musser, Harry R., to Standard Oil Company, The (Ohio). Post-halogenated nitrile polymers. 3,538,065, 11-3-70, Cl. 260-88.7

Griffith, Russell K.; and Zorska, Roman, to Standard Oil Company, The. Temperature-resistant articles. 3,531,452, 9-29-70, Cl. 260-88.7

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Grigsby, Chester E., to General Refractories Company. Perforated or ventilated shell for electric arc furnaces. 3,518,349, 6-30-70, Cl. 13-10.

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Pascente, Joseph E., 3,491,284.
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Grigull, Hans. Preparatory treatment and processing of plastic and rubber materials. 3,489,830, 1-13-70, Cl. 264-102.

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Grikscheit, Henry W. Concrete cylinder mold and method of conditioning same. 3,490,577, 1-20-70, Cl. 206-46.

Grilk, Henry G., to Litton Precision Products, Inc. Dual direction linear amplifier. 3,550,000, 12-22-70, Cl. 325-15.

Grillo-Werke Aktiengesellschaft: *See—*
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Grillot, Homer N., to International Harvester Company. Cam actuated twine knife. 3,508,776, 4-28-70, Cl. 289-14.

Grim, Gayle E.; and Whitehead, Abe G., to Trane Company, The. Machine tool. 3,530,763, 9-29-70, Cl. 90-24.

Grim, Hugo: *See—*
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Grim, Wayne M.: *See—*
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Grimes, Arthur David: *See—*
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Grimes, Delmar C.; Muller, George H.; and Ulics, George, to Ford Motor Company. Adjustable steering mechanism. 3,548,675, 12-22-70, Cl. 74-493.

Grimes, John Herbert; and Dress, William, to United Kingdom Atomic Energy Authority. Precipitation processes for metal-containing materials. 3,495,954, 2-17-70, Cl. 23-328.

Grimes, Warren G. Liquid level sensing assembly with dual spring probes. 3,519,769, 7-7-70, Cl. 200-61.05

Grimes, Warren K.; Moulton, David M.; and Shaffer, James H., to United States of America, Atomic Energy Commission. Extraction of protactinium from molten salt mixtures into bismuth-tin solution. 3,495,975, 2-17-70, Cl. 75-84.1

Grimm, Harold; and Zuckerman, Ira, to Panther Machine Corporation. Cloth clamping device for sheet material spreading machine. 3,497,204, 2-24-70, Cl. 269-254.

Grimm, Heinrich: *See*—
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Grimm, Richard C.: *See*—
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Grimm, Robert A., to Ashland Oil & Refining Company. 1,3-Dithietane-2,2,4,4-tetraacyl chloride and the corresponding ester and amide derivatives. 3,544,594, 12-1-70, Cl. 260-327.

Grimm, Robert A.; and Slagel, Robert C., to Ashland Oil & Refining Company. Substituted bis organo sulfones and sulfoxides and method for the preparation thereof. 3,501,514, 3-17-70, Cl. 260-400.

Grimm, Volker: *See*—
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Grimm, Werner, to USV Prazisionsmessgerate GmbH. Glow discharge tube for spectral analysis. 3,543,077, 11-24-70, Cl. 313-210.

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Grimmel, Harry W., to American Hoechst Corporation. Fiber-reactive phthalocyanine azo dyes containing β-hydroxyethylsulfone sulfuric acid ester, vinyl sulfone or sulfonylurea groups. 3,489,741, 1-13-70, Cl. 260-146.

Grimmelt, Alfons; and Heim, Josef, to Jagri G.m.b.H., Maschinen u. Apparatebau. Apparatus for drying wet-treated goods. 3,522,663, 8-4-70, Cl. 34-54.

Grimoldi, Ranaldo H.; Clarke, James E.; Bastian, Alfred F.; and Dougherty, Anthony J., to Kaiser Steel Corporation. Method for making channel structure. 3,529,346, 9-22-70, Cl. 29-475.

Grimoldi, Ranoldo H.; and Powers, Joseph E., to Kaiser Steel Corporation. Tack-welding machine. 3,495,064, 2-10-70, Cl. 219-60.

Grimshaw, Derald E., to Environmental Services, Inc. Sewage treatment system. 3,530,990, 9-29-70, Cl. 210-199.

Grimsley, Gail. Post anchor. 3,491,985, 1-27-70, Cl. 256-47.

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Grimstad, Oswald B., to United Parcel Service General Services Co., mesnc. Self-synchronizing clutch. 3,539,044, 11-10-70, Cl. 192-67.

Grimwood, Geoffrey Luther, to Broadbent, Thomas, & Sons Limited. Vibrating centrifuges. 3,488,691, 1-6-70, Cl. 210-370.

Grimwood, Geoffrey Luther, to Broadbent, Thomas & Sons Limited. Drain system for laundry washing machines. 3,526,108, 9-1-70, Cl. 68-208.

Grimwood, Geoffrey Luther, to Broadbent, Thomas & Sons Limited. Control for induction motors. 3,530,351, 9-22-70, Cl. 318-229.

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Grinchenko, Nikolai Grigorievich; Gradov, Oleg Borisovich; Kildishev, Vasily Semenovich; Kramarenko, Vladimir Vasilievich; Katsnelson, Moisei Abramovich; Makogonenko, Ivan Eliseevich; Rudnitsky, Mikhailovich; Stanislavsky, Lazar Yankelevich; Semernin, Mikhail Iosifovich; Chigirinsky, Alexandr Abramovich; and Shulga, Andrei Leontievich: Device for feeding coolant to hollow conductors of stator bar winding in electric machines. 3,510,700, 5-5-70, Cl. 310-54.

Grindahl, George A.; and Pierce, Ogden R., to Dow Corning Corporation. Process for the polymerization of perfluoroalkyl substituted triazines and products thereof in the presence of ultraviolet radiation. 3,542,660, 11-24-70, Cl. 204-159.11

Grindheim, Earl A.; and Goetzinger, Charles E., to Rosemount Engineering Company Limited. Current transmitter responsive to a D.C. isolated voltage signal. 3,538,355, 11-3-70, Cl. 307-310.

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Griner, Arthur J.; and Pinto, Albert A., to National Biscuit Company. Assortment assembling apparatus. 3,531,912, 10-6-70, Cl. 53-156.

Gringer, Donald, to Allway Tools, Inc. Knife handle for adjustable blade. 3,520,059, 7-14-70, Cl. 30-293.

Gringras, Michel, to Compagnie de Saint-Gobain. Method of making silica bonded to sodium metasilicate. 3,503,790, 3-31-70, Cl. 117-100.

Grinnell Corporation: *See*—
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Grinnell, George G.; Grinnell, Sherman K.; and Grinnell, Garith K. Sheet binding. 3,525,126, 8-25-70, Cl. 18-19.

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Grinninger, Lowell D., to National Distillers and Chemical Corporation. Process for hydrogenation of aromatic hydrocarbons. 3,513,211, 5-19-70, Cl. 260-667.

Grinninger, Lowell D.; and Greenberg, Harry, to National Distillers and Chemical Corporation. Process for preparing alfin catalysts and sodium dispersions for use in making the same. 3,491,074, 1-20-70, Cl. 260-82.1

Grinonneau, William Charles: *See*—
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Grinwald, Mathias E. Diverter and cutter attachment for aquatic harvester. 3,541,769, 11-24-70, Cl. 56-9.

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Griot, Rudolf G., to Sandoz-Wander, Inc.8-Carbobenzxy-1,3,8-triazaspiro[4,5] decane- 2,4-dione. 3,518,275, 6-30-70, Cl. 260-294.3

Griot, Rudolf G., to Sandoz-Wander, Inc. Derivatives of bis-(4-biphenylyloxy) acetic acid. 3,526,632, 9-1-70, Cl. 260-294.3

Griot, Rudolf G., to Sandoz-Wander, Inc.Certain 2-[4-(dilower alkylaminoloweralkoxy) phenyl]-4,6-diphenyl pyridines and derivatives thereof. 3,535,329, 10-20-70, Cl. 260-296.

Griot, Rudolf G., to Sandoz-Wander, Inc.2,6-Diphenyl-4-[p-(dilower-alkyl amino lower-alkoxy) phenyl] pyridines and derivatives thereof. 3,535,330, 10-20-70, Cl. 260-296.

Griot, Rudolf G., to Sandoz-Wander, Inc. Derivatives of acetic acid. 3,539,628, 11-10-70, Cl. 260-559.

Griot, Rudolf G., to Sandoz, Inc. Di-bis(p-chlorophenoxy)acetic acid esters of dimethylol pyridines. 3,542,795, 11-24-70, Cl. 260-295.

Griot, Rudolf G., to Sandoz-Wander, Inc. Derivatives of acetic acid. 3,546,229, 12-8-70, Cl. 260-294.3

Griot, Rudolf G.; and Oetterli, Johann R., to Sandoz-Wander, Inc. Di-substituted malonic acids. 3,507,911, 4-21-70, Cl. 260-520.

Griot, Rudolf. Substituted heterocyclic basic esters of bis- (parachlorophenoxy)acetic acid. 3,534,051, 10-13-70, Cl. 260-294.3

Gripperrods Limited: *See*—
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Grippo, Antonio R. Balancing systems for centrifuging machines. 3,494,471, 2-10-70, Cl. 210-363.

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Gripshover, Paul J.; and Hanes, Hugh D., to Battelle Development Corporation, The. Fabrication of integral structures. 3,531,848, 10-6-70, Cl. 29-420.5

Grisaffe, Salvatore J.; and Spitzig, William A., to United States of America, National Aeronautics and Space Administration. Method of making a diffusion bonded refractory coating. 3,493,415, 2-3-70, Cl. 117-50.

Grise, Frederick G. J., to Grimar, Inc. Check valve. 3,504,699, 4-7-70, Cl. 137-525.1

Grisebach, Hans Theodor; and Weirich, Walter, to Gewerkschaft Eisenhutte Westfalia. Pressure relief devices. 3,548,867, 12-22-70, Cl. 137-494.

Grisel, Yvan Victor, to Ejectoret S.A. Case for a lipstick or like cosmetic stick. 3,493,309, 2-3-70, Cl. 401-78.

Griset, Ernest J., Jr., to Ethicon, Inc. Method of separating adhering collagen monofilaments. 3,502,534, 3-24-70, Cl. 156-344.

Griset, Ernest J., Jr., to Ethicon, Inc. Method for the manufacture of collagen tape. 3,511,904, 5-12-70, Cl. 264-202.

Griset, Ernest J., Jr.: *See*—
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Grisley, Daniel W., Jr., to Monsanto Company. Fungicidal composition and method containing diiodophenyl phosphoranes. 3,511,912, 5-12-70, Cl. 424-221.

Grissom, John T.; Koehler, Dale R.; and Teschner, Bernard M. Bimetallic clinical thermometer. 3,511,095, 5-12-70, Cl. 73-363.5

Grist, Franklin James, to Miller Electric Manufacturing Co. Adjustable arc welding power supply system. 3,530,359, 9-22-70, Cl. 321-5.

Grist, George Douglas, to Jacobs Manufacturing Company, The. Elastic exhaust cap. 3,490,488, 1-20-70, Cl. 137-512.4

Griswold, David M.: *See*—
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Griswold, Edward A. Electrostatic filtering for cleaning dielectric fluids. 3,544,441, 12-1-70, Cl. 204-186.

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Griswold, Halsey E., to Texaco Inc. Molecular sieve desorption with a mixture of hydrocarbons. 3,539,502, 11-10-70, Cl. 208-310.

Griswold, Norman R. Combination boat dolly and reinforcing means. 3,551,000, 12-29-70, Cl. 280-47.32

Griswold, Richard H.: *See*—
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Griswold, Robert N., to Corning Glass Works. Ohmeter for measuring the resistance of a resistor connected across a PN junction. 3,501,693, 3-17-70, Cl. 324-62.

Griveau, Pierre R.: *See*—
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Grob, Irwin. Fluid flow meter. 3,534,601, 10-20-70, Cl. 73-204.

Grob, Leonardus F.A.: *See*—
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Grobe, Volker; Ulbricht, Joachim; Reichert, Hans W.; Fark, Heinz P. K.; Buchmann, Edeltraud E.; Hertel, Ulrich E. E.; Kopcke, Dieter A. K.; Michaelis, Walter K.; Peter, Eberhard P. H.; Aurich, Joachim G.; Roth, Eberhard W.; Bender, Alfred A.; and Bernhardt, Karl H., to VEB Chemiefaserwerk 'Friedrich Engels'. Apparatus for solvent polymerization. 3,520,661, 7-14-70, Cl. 23-283.

Grobe, Wolfgang, to International Standard Electric Corporation. Switching grid matrix with crosspoint elements, controlled by marking pulses being very short compared to their responding period. 3,516,064, 6-2-70, Cl. 340-166.

Grobert, Paul H., to International Telephone and Telegraph Corporation. Digital AFC. 3,503,003, 3-24-70, Cl. 331-17.

Grobin, Allen W., Jr., to International Business Machines Corporation. Enhanced and stable photographic images. 3,523,790, 8-11-70, Cl. 96-27.

Grobin, Allen W.; Reynolds, Jerry L.; Schools, Rodman S.; and Sincerbox, Glenn T., to International Business Machines Corporation. Holographic method for generating masking patterns. 3,537,854, 11-3-70, Cl. 96-36.2

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Groce, Irwin J., to North American Rockwell Corporation. Method of preparing an anode composition. 3,503,810, 3-31-70, Cl. 136-120.

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Grochowski, Edward G.; and Lyons, Vincent J., to International Business Machines Corporation. Method of epitaxially depositing single-crystal layer and structure resulting therefrom. 3,523,046, 8-4-70, Cl. 148-175.

Groder, Morris L.; and Porthouse, William J. Target scoring system. 3,489,413, 1-13-70, Cl. 273-102.2

Grodinsky, Robert, to Acoustic Research, Inc. Apparatus and method for reducing amplifier distortion. 3,548,331, 12-15-70, Cl. 330-24.

Groebke, Wolfgang, to Sandoz Ltd., a/k/a Sandoz A.G. Monoazo dyes of the azobenzene series. 3,522,234, 7-28-70, Cl. 260-207.

Groebke, Wolfgang; Mueller, Curt; and Wirz, Roswitha, to Sandoz Ltd., a/k/a Sandoz A.G. Disazo dyestuffs containing N-(cyanoethyl)- sulphonamide groups having low solubility in water. 3,496,162, 2-17-70, Cl. 260-187.

Groebke, Wolfgang; Mueller, Curt; and Wirz, Roswitha, to Sandoz Ltd., a/k/a Sandoz A.G. Phenyl-azo-phenyl dyes of low solubility in water. 3,536,695, 10-27-70, Cl. 260-207.1

Groebli, Rene. Linen washing machine. 3,503,085, 3-31-70, Cl. 8-158.

Groemminger, William, Jr., to Sylvania Electric Products, Inc. Bowden wire switch operating mechanism. 3,501,975, 3-24-70, Cl. 74-501.

Groen, Frederick H., Jr.: *See*—
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Groendycke, Alan R., to Hughes Aircraft Company. Coarse-fine phase locked loop. 3,528,026, 9-8-70, Cl. 331-11.

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Groenke, Merlin A., to Portable Elevator Mfg. Co. Level and depth control for cultivating apparatus. 3,534,820, 10-20-70, Cl. 172-413.

Groenke, Merlin A., to Portable Elevator Mfg. Co. Cultivating tool mounting assembly. 3,536,146, 10-27-70, Cl. 172-710.

Groeper, Lawrence H.: *See*—
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Groetschel, Karl Maria. Roof supports for mine workings. 3,490,243, 1-20-70, Cl. 61-45.

Groetschel, Karl Marie. Support. 3,490,244, 1-20-70, Cl. 61-45.

Groetschel, Karl Marie. Position restoring devices for mine roof props. 3,530,678, 9-29-70, Cl. 61-45.

Groezinger, Alfred, to Bosch, Robert, G.m.b.H. Alternating current generator. 3,534,204, 10-13-70, Cl. 310-168.

Groff, Charles H.; and Neuwirth, Edward H., to Watson-Standard Co. Thermosetting resin compositions comprising poly- vinyl chloride dispersion resin. 3,539,480, 11-10-70, Cl. 260-23.

Groff, Clayton E.: *See*—
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Groff, Gaylord L., to Minnesota Mining and Manufacturing Company. Epoxy resin compositions including castor oil for flexibility. 3,527,720, 9-8-70, Cl. 260-18.

Groff, Gaylord L., to Minnesota Mining and Manufacturing Company. One-part long-self-life epoxy-based compositions. 3,529,034, 9-15-70, Cl. 260-824.

Groff, Gaylord L., to Minnesota Mining and Manufacturing Company. Electrically insulative polymer impregnated, mica paper tape. 3,539,438, 11-10-70, Cl. 161-163.

Groff, Gaylord L.; and Ridihalgh, John L., to Minnesota Mining and Manufacturing Company. Thermo-curing coating powder composition. 3,506,598, 4-14-70, Cl. 260-2.

Groff, Herbert R.: *See*—
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Groff, Ralph W., Sr.: *See*—
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Grogan, Edward M., to United States Steel Corporation. Method of making galvannealed ferrous metal of improved solderability. 3,540,943, 11-17-70, Cl. 148-6.14

Grogan, Garner H., Jr., to Security Electric Corporation. Electrical control circuitry. 3,508,257, 4-21-70, Cl. 340-381.

Grogler, Gerhard; and Windemuth, Erwin, to Farbenfabriken Bayer Aktiengesellschaft. Cross-linked urethanes and ureas. 3,522,213, 7-28-70, Cl. 260-75.

Grohall, Raymond E.; Mimier, Norbert J.; and Thornbery, John H., to Penn Controls, Inc. Thermocoupl positioning and mounting means. 3,519,491, 7-7-70, Cl. 136-217.

Grohe, Friedrich, Armaturenfabrik, Firma: *See*—
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Grohe, Friedrich, to Grohe, Friedrich, Armaturenfabrik, Firma. Thermostat controlled mixing faucet. 3,539,099, 11-10-70, Cl. 236-12.

Grohmann, Helmut; and Kulling, Achim, to Titangesellschaft mbH. Process for the post-treatment of titanium dioxide pigment. 3,537,870, 11-3-70, Cl. 106-300.

Grohmann, Johannes: *See*—
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Grohoski, Raymond J.: *See*—
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Grohoski, Theodore S., to Timex Corporation. Photoelectric conversion system in a horological device. 3,509,712, 5-5-70, Cl. 58-23.

Grojean, Richard E., to McPherson Instrument Corporation. Pulsed microwave light source. 3,514,604, 5-26-70, Cl. 250-84.

Grojean, Richard E., to McPherson Instrument Corporation. Double beam spectrometer readout system. 3,540,825, 11-17-70, Cl. 356-88.

Groll, Manfred; Wunderlich, Klaus; and Bien, Hans-Samuel, to Farbenfabriken Bayer Aktiengesellschaft. Anthraquinone dyestuffs. 3,549,664, 12-22-70, Cl. 260-371.

Groll, Robert M.: *See*—
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Grolla, Herbert, to Heinrich Wagner Maschinenfabrik, Firma. Apparatus for compressing and packing molding sand. 3,503,436, 3-31-70, Cl. 164-172.

Grolly, Walter, to Brevets Aero-Mecaniques S.A. Armor piercing, sabot shells. 3,507,221, 4-21-70, Cl. 102-52.

Grolman, Bernard; and Polanyi, Michael L., to American Optical Company, mesne. Method for measuring intraocular pressure. 3,538,754, 11-10-70, Cl. 73-80.

Gromakov, Vitaly Viktorovich; Kapitanov, Vaktor Ivanovich; Kitchenko, Anatoly Ivanovich; and Edemsky, Vladimir Mikhailovich. Power regulator for arc furnace. 3,548,061, 12-15-70, Cl. 13-13.

Grommers, Einte P.; Deverhaus, Fritz; and Tjepkema, Jacobus J. Multistage, semicontinuous process for the emulsion polymerization of vinyl esters of alpha-branched monocarboxylic acids. 3,498,938, 3-3-70, Cl. 260-17.

Gronberg, Le Roy E., to General Mills, Inc. Potato coated snack food product. 3,532,509, 10-6-70, Cl. 99-83.

Gronemann, Manfred: *See—*
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Gronemeyer, Erich W.: *See—*
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Gronemeyer, Erich W. Valve. 3,521,859, 7-28-70, Cl. 251-353.
Gronemeyer, Erich W.; and Kutik, Louis F. Pump. 3,507,586, 4-21-70, Cl. 417-480.
Gronemeyer, Erich W.; and Kutik, Louis F. Dosage time indicating dispensing container. 3,533,371, 10-13-70, Cl. 116-121.
Groner, Paul Stephen, to Corning Glass Works. Driver for bipolar capacitive loads. 3,519,851, 7-7-70, Cl. 307-237.
Gronewold, Uwe: *See—*
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Gronlund, Sven Olof. Roof seaming machine. 3,487,799, 1-6-70, Cl. 113-55.
Gronner, Alfred D., to Simmonds Precision Products, Inc. Torque-type servo rebalancing system. 3,496,436, 2-17-70, Cl. 318-18.
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Gronwick, Jerry P.: *See—*
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Gronwoldt, Walter, to Frau Ute Annemarie. Baseboard electric heating apparatus. 3,488,475, 1-6-70, Cl. 219-365.
Groo, Hayes Richard, III, to Columbia Broadcasting System, Inc. Apparatus for producing electrostatic images. 3,508,477, 4-28-70, Cl. 95-1.
Groom, Lemuel D., III; and Garrett, James M., to Texas Instruments, Incorporated. Threshold device energizer. 3,546,568, 12-8-70, Cl. 323-19.
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Groppini, Diego, to Dalmine S.p.A. Device for straightening circular cross section workpieces having varying diameters. 3,492,850, 2-3-70, Cl. 72-98.
Grosbard, Gregory, to General Patent Development Corporation. Multipurpose hair treating implement. 3,491,777, 1-27-70, Cl. 132-120.
Grosbard, Gregory, to International Research Development, Inc. Apparatus for mixing, preparing and extruding viscous material. 3,537,386, 11-3-70, Cl. 99-353.
Grosch, Charles B.; and Lillestrand, Robert L., to Control Data Corporation. Dynamic space navigation and surveying system. 3,491,591, 1-27-70, Cl. 73-178.
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Gross, Clarence R., to Gulf & Western Industrial Products Company, mesne. Electronic control circuit for automatically fed machines. 3,534,897, 10-20-70, Cl. 228-8.
Gross, Eshcol S. Stair climbing dolly. 3,515,401, 6-2-70, Cl. 280-5.26
Gross, Frank J.; and Horn, John M., to Allis-Chalmers Manufacturing Company. Method of bearing alignment. 3,499,208, 3-10-70, Cl. 29-434.
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Gross, Franz, to Siemens Aktiengesellschaft. Tuning and coupling device for a frequency- modulation tube with a delay line operating as a line resonator. 3,525,955, 8-25-70, Cl. 333-98.
Gross, Franz; and Krapf, Rudolf, to Brown, Boveri &Cie Aktiengesellschaft. Overheating protection device for thermionic elements heated by nuclear energy. 3,546,496, 12-8-70, Cl. 310-4.
Gross, Friedrich, to Westinghouse Bremsen- und Apparatebau G.m.b.H. Valve assembly and method of installation. 3,504,701, 4-7-70, Cl. 137-540.
Gross, Friedrich, to Westinghouse Bremsen- und Apparatebau G.m.b.H. Pneumatic check valves. 3,508,576, 4-28-70, Cl. 137-525.
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Gross, John, to Celanese Corporation. Warp knitting process. 3,494,149, 2-10-70, Cl. 66-85.
Gross, Josef; and Barkow, William Henry, to RCA Corporation. Deflection yoke and apparatus for its fabrication utilizing a magnetic ramming technique. 3,518,590, 6-30-70, Cl. 335-213.
Gross, Leo. Microbiological inhibition testing device. 3,540,985, 11-17-70, Cl. 195-127.
Gross, Maurice J.; and Johnson, George W., to Rock-Mill, Inc. Machine for scraping railway rails. 3,488,789, 1-13-70, Cl. 15-93.
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Gross, Wayne B., to Iona Manufacturing Co., Inc. Beater piloting arrangement for an electric food mixer. 3,533,715, 10-13-70, Cl. 416-174.
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Grove, Ned M. Mechanical pseudarthrosis of the femur. 3,543,749, 12-1-70, Cl. 128-92.
Grove, Newell Clark, to Barber-Colman Company. Method and apparatus for regulating batch-type heat treating units. 3,529,811, 9-22-70, Cl. 263-10.
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Grover, Howard E. Ground working implements. 3,534,819, 10-20-70, Cl. 172-316.

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Grubb, John, to Upham, Harvey C. Adhesive pressure pad. 3,490,448, 1-20-70, Cl. 128-156.

Grubb, Willard T., to General Electric Company. Process and apparatus for electrochemically oxidizing alcohol to generate electrical energy. 3,514,335, 5-26-70, Cl. 136-86.

Grubb, Willard T.; and Cliche, Carl E., to General Electric Company. Tubularly housed fuel cell. 3,508,970, 4-28-70, Cl. 136-86.

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Gruber, Francois Rene, to Itek Corporation. Film processing apparatus. 3,491,674, 1-27-70, Cl. 95-89.

Gruber, George E., to Monitor Mfg., Inc. Bin level indicator with insertable paddle. 3,542,982, 11-24-70, Cl. 200-61.21

Gruber, Gunter; and Wannow, Hans-Andreas, to Cassella Farbwerke Mainkur Aktiengesellschaft. Process for anticrease finishing textile fabrics consisting of cellulose fibers and mixed fabrics containing cellulose fibers. 3,532,456, 10-6-70, Cl. 8-116.3

Gruber, Hans. Process and apparatus for the electrolytic continuous direct production of refined aluminum and of aluminum alloys. 3,502,553, 3-24-70, Cl. 204-67.

Gruber, Stephen A. Fluid biased flow control means. 3,536,432, 10-27-70, Cl. 251-175.

Gruber, Wilhelm; and Quis, Peter, to Rohm & Haas G.m.b.H. Preparation of cyanuric chloride. 3,524,852, 8-18-70, Cl. 260-248.

Gruber, Wilhelm; Quis, Peter; and Hopfner, Bernd, to Rohm & Haas G.m.b.H. Cyanformic thioesters. 3,492,375, 1-27-70, Cl. 260-455.

Gruber, William J. Cap construction. 3,550,160, 12-29-70, Cl. 2-197.

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Grunin, Louis; Duhnkrack, George B.; Kinneman, William P.; and Gilbert, Philip, to Koppers Company, Inc. Styrene resins of controlled properties. 3,493,636, 2-3-70, Cl. 260-886.

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Guelph, John, to Valyi, Emery I. Molding apparatus with individually separable parison mold and neck ring parts. 3,543,340, 12-1-70, Cl. 18-5.

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Guenthard, Jacques; and Mislin, Roland, to Sandoz Ltd., a/k/a Sandoz A.G. Disperse dyes of the (1,9)-isothiazolanthrone series. 3,522,263, 7-28-70, Cl. 260-303.

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Guenther, Clifford H.; and Beauvais, Rene G., to Resistance Welder Corporation. Sheet feeding means for roll forming mill. 3,533,619, 10-13-70, Cl. 271-55.

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Guenther, Lloyd M.; Johnson, Gordon B.; and Meader, Arthur L., Jr., to Chevron Research Company. Method for producing fibrous web from polymer film. 3,496,260, 2-17-70, Cl. 264-156.

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Guerra, Raymond; McElyea, Gerald W.; Cullom, John H.; and Ley, Gordon S., to Westinghouse Electric Corporation. Light amplifier system. 3,530,388, 9-22-70, Cl. 330-4.3

Guerreiro, Antone M., to Northrop Corporation. Tempering process for polyurethane rubber material. 3,551,536, 12-29-70, Cl. 264-28.

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Guerrero, Fernando V., to Continental Oil Company. Conduit spacer. 3,523,667, 8-11-70, Cl. 248-49.

Guerrero, Fernando V., to Continental Oil Company. Machine for automatically cementing couplings to plastic pipe. 3,523,852, 8-11-70, Cl. 156-350.

Guerrero, Fernando V., to Continental Oil Company. Pipe belling device. 3,535,741, 10-27-70, Cl. 18-19.

Guerrico, Martin. Load supporting and transporting device. 3,512,663, 5-19-70, Cl. 214-38.

Guerrico, Martin. Combination load lifting and transporting device. 3,549,034, 12-22-70, Cl. 214-372.

Guerrier, Jean; and Hamard, Jacques, to Esso Research and Engineering Company. Preparation of polar petroleum resins. 3,544,497, 12-1-70, Cl. 260-23.7

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Guerrieri, Salvatore A., to Lummus Company, The. Separation of vapor fraction and liquid fraction from vapor-liquid mixture. 3,492,795, 2-3-70, Cl. 55-463.

Guerrieri, Salvatore A. Flash evaporation with series arranged with solar heating zone. 3,511,756, 5-12-70, Cl. 203-11.

Guerrieri, Salvatore A., to Lummus Company, The. Steam reforming of hydrocarbons. 3,524,819, 8-18-70, Cl. 252-373.

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Guertler, Rudolf Julius Franz; and Rawson, Raymond John Clancy, to International Standard Electric Corporation. Log-periodic antenna arrays. 3,550,138, 12-22-70, Cl. 343-751.

Guest, Frank J., to Du Pont de Nemours, E. I., and Company. Web aligning apparatus. 3,504,834, 4-7-70, Cl. 226-22.

Guest, George W., to Sprague & Henwood, Incorporated. Free fall hammer apparatus. 3,500,940, 3-17-70, Cl. 173-124.

Guetersloh, John W.: *See—*
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Guetet, Robert: *See—*
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Guggenheim, Howard J.; and Kane, John V., to Bell Telephone Laboratories, Incorporated. Rare earth-containing compositions and preparation of same. 3,489,052, 1-13-70, Cl. 84-422.

Guggenheim, Howard J.; and Kane, John V., to Bell Telephone Laboratories, Incorporated. Rare earth-containing compositions and preparation of same. 3,490,052, 1-13-70, Cl. 331-94.5

Guggenheim, S. Frederic: *See—*
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Guggisberg, Ernst, to Graphicart, Internationale Ausrustungsgesellschaft. Automatic device for counting folded papersheets or printed matters, especially folded newspapers which are conveyed in shingled manner on a conveyorband. 3,529,168, 9-15-70, Cl. 250-223.

Gugin, Robert J., to Agristeel Limited. Swather. 3,497,051, 2-24-70, Cl. 198-7.

Gugler, Victor F. Dough-shaping machine and method. 3,494,304, 2-10-70, Cl. 107-9.

Gugler, Victor F. Apparatus for cutting material advancing along a conveyor. 3,530,755, 9-29-70, Cl. 83-355.

Gugler, Victor F. Method and apparatus for placing items in containers. 3,541,754, 11-24-70, Cl. 53-35.

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Gugliemelli, Lewis A.; and Weaver, M. Ollidene, to United States of America, Agriculture. Process for isolating vinyl-type component of starch graft copolymers. 3,491,040, 1-20-70, Cl. 260-17.4

Gugliotta, Emanuele: *See—*
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Gugliotta, John; and Riddle, Kenneth J., to Weston Instruments, Inc. Exposure meter with needle clamping scale changing and filter actuating mechanism. 3,488,125, 1-6-70, Cl. 356-224.

Gugliotti, Louis M., to United Aircraft Corporation. Multiplexing switch. 3,550,016, 12-22-70, Cl. 328-104.

Gugolz, Henry J.: *See—*
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Guhl & Schreibler A.G.: *See—*
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Guhl, August. Method for accelerating the drying process in the treatment of hair, and drying hood for the application of said method. 3,508,338, 4-28-70, Cl. 34-3.

Guhl, Heinrich, to Transistor A.G. Circuit for regulating the shaft speed of a commutator-type motor. 3,530,352, 9-22-70, Cl. 318-327.

Guibel, Jacques: *See—*
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Guice, Wilma A.: *See—*
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Guichet, Niles F. Pantograph. 3,490,146, 1-20-70, Cl. 32-20.

Guichet, Niles F. Dental clutch fabrication. 3,508,333, 4-28-70, Cl. 32-32.

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Guidelli Guidi, Guido N., to Societe Italiana Apparecchi di Precisione. Photoelectric visibility measurer including fixed and moveable diaphragms. 3,535,533, 10-20-70, Cl. 250-218.

Guido, Jurgen. Method of projection welding of push rod. 3,549,853, 12-22-70, Cl. 219-104.

Guido, Louis A.; and King, John J., to Sperry Rand Corporation. Standby pulse generator. 3,509,358, 4-28-70, Cl. 307-106.

Guier, William. Transporter for manual slips. 3,514,822, 6-2-70, Cl. 24-263.

Guier, William. Means for establishing visual communication in fluids resistant to light penetration. 3,516,723, 6-23-70, Cl. 350-63.

Guier, William. Guide structure for manipulating drill pipe or the like during drilling of earth bores. 3,533,516, 10-13-70, Cl. 214-2.5

Guigan, Jean; and Laucournet, Robert, to Compagnie Generale d'Automatisme. Filling line for the filling of containers. 3,547,781, 12-15-70, Cl. 195-127.

Guilbault, Lawrence J., to General Electric Company. Method of dry blending an agglomerated material with a powdered material. 3,541,043, 11-17-70, Cl. 260-37.

Guilbault, Lawrence J.; and Schwenker, David G., to General Electric Company. Method of manufacturing insulated electrical members. 3,504,431, 4-7-70, Cl. 29-605.

Guilbe-Jimenez, Jaime: *See—*
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Guilbert, Henri Emile; and Marietta, Cesar, to Anciens Etablissements Leon Guilbert & Fils. Bending apparatus, especially for wrought iron work and other applications. 3,487,676, 1-6-70, Cl. 72-477.

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Guilbert, Nicholas R., Jr.; and Metz, Louis P., to Guilbert, Incorporated. Reversing edge control for car doors. 3,537,211, 11-3-70, Cl. 49-27.

Guild, Charles L.; and Goodman, Willard B. Hydraulic cushion block and impact type pile driving hammers. 3,498,391, 3-3-70, Cl. 173-131.

Guild, Charles L.; and Goodman, Willard B. Cathead construction. 3,507,457, 4-21-70, Cl. 242-117.

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Guile, Donald L., to Cohart Refractories Company, mesne. Ceramic refractory. 3,540,900, 11-17-70, Cl. 106-59.

Guile, Donald L., to Corhart Refractories Company. Ceramic refractory. 3,551,172, 12-29-70, Cl. 106-59.

Guiles, Jeremy S. Foldable desk. 3,550,895, 12-29-70, Cl. 248-459.

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Guilford, Thomas Harlan, to General Foods Corporation. Cauliflower stem trimming machine. 3,490,506, 1-20-70, Cl. 146-106.

Guilford, Thomas Harlan, to General Foods Corporation. Cauliflower leaf trimming machine. 3,527,276, 9-8-70, Cl. 146-106.

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Guilhem, Robert; Desveaux, Eugene; and Nard, Georges, to Compagnie Francaise Thomas Houston-Hotchkiss Brandt. Random modulation radar. 3,526,894, 9-1-70, Cl. 343-9.

Guill, Charles W. Mixing and dispensing marble game. 3,534,964, 10-20-70, Cl. 273-144.

Guill, Richard E. Adjustable template for routing fixture. 3,519,043, 7-7-70, Cl. 144-144.5

Guillaume, Marcel; Peters, Jean-Marie; Winand, Leon; Govaerts, Jean; Gueben, Georges; Delfiore, Guy; and Godar, Serge, to European Atomic Energy Community (Euratom). Accelerator targets for neutron production. 3,549,399, 12-22-70, Cl. 117-16.

Guillemart, Lucien, to Regie Nationale des Usines Renault, and Automobiles Peugeot. Positive-control electric starter. 3,496,787, 2-24-70, Cl. 74-527.

Guillemin, Ernst A., to EG & G, Inc., mesne. Active filter networks. 3,509,482, 4-28-70, Cl. 330-107.

Guillemin, Germain Joseph Edmond, to Compagnie des Competeurs. Magnetometer incorporating probe in the form of a saturable ferramagnetic core subjected to the magnetic field to be measured and to an auxiliary exciting alternating field. 3,515,985, 6-2-70, Cl. 324-43.

Guillerd, Jean; Reinmann, Jacques; and Camberlyn, Roger, to Societe Anonyme dite: Compagnie des Eaux et de l'Ozone. Ozone-producing apparatus. 3,542,664, 11-24-70, Cl. 204-322.

Guillerd, Jean; and Travers, Fernand, to Compagnie des Eaux et de l'Ozone. Tubular ozonizer. 3,551,321, 12-29-70, Cl. 204-321.

Guillerd, Jean; and Valin, Claude, to Societe Anonyme dite: Compagnie des Eaux et de l'Ozone. Process and installation for clarification of water. 3,534,855, 10-20-70, Cl. 210-73.

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Guillet, Alain; and Moreau, Jean Pierre, to Produits Chimiques Pechiney-Saint-Gobain. Method of fulling keratinous goods. 3,526,539, 9-1-70, Cl. 117-141.

Guillet, James E.; and Combs, Robert L., to Eastman Kodak Company. Blends of waxes and crystalline copolymers of butene-1 and propylene or ethylene. 3,519,586, 7-7-70, Cl. 260-28.5

Guillet, James E.; and Coover, Harry W., Jr., to Eastman Kodak Company. Hydrocarbon wax coatings and their process of preparation. 3,503,770, 3-31-70, Cl. 106-270.

Guillon, Jean Pierre; and Bisjak, Jacques, to CSF-Compagnie Generale de Telegraphie Sans Fil. Constant intensity monochromatic light source. 3,497,767, 2-24-70, Cl. 315-177.

Guillot, Claude, to Compagnie des Ateliers et Forges de la Loire. Device for regulating the thickness of rolling- mill products, and rolling mills equipped therewith. 3,527,074, 9-8-70, Cl. 72-8.

Guillot, Claude, to Compagnie des Ateliers et Forges da la Lorie St. Chamond, St. Etienne, Jacob-Holtzer, and Hydromecanique et Frottement, Firminy. Device for regulating the thickness of rolling-mill products and rolling-mills equipped therewith. 3,538,727, 11-10-70, Cl. 72-8.

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Guillot, Gerard Noel; Le Bras, Claude Raymond; and Louichon, Marc Georges, to Gaz de France. Battery of high-temperature operating fuel cells. 3,492,165, 1-27-70, Cl. 136-86.

Guillot, Jean Claude; Poignant, Pierre; and de Lesseaux, Jacques de Bazelaire, to Produits Chimiques Pechiney-Saint-Gobain. Thiazole derivatives. 3,551,442, 12-29-70, Cl. 260-306.8

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Guinard, Paul Andre, to Etablissements Pompes Guinard. Filter elements and the manufacture thereof. 3,520,418, 7-14-70, Cl. 210-498.

Guinard, Paul Andre, to Etablissements Pompes Guinard, Societe Anonyme. Rotary packing for use rotary machines and more particularly in pumps. 3,527,465, 9-8-70, Cl. 277-27.

Guinet, Paul Alfred Eugene; and Morel, Jean Marius Ernest, to Rhone-Poulenc S.A. Organosilicon polymers containing oxyalkylene residues. 3,530,159, 9-22-70, Cl. 260-448.2

Guinot, Gabriel L., to Societe Anonyme Poclain. Earthworking machine adapter for enabling easy connection of various work tools. 3,510,017, 5-5-70, Cl. 214-138.

Guinot, Gabriel L., to Societe Anonyme Poclain. Turret earthworking machine. 3,515,298, 6-2-70, Cl. 214-138.

Guinot, Gabriel L., to Societe Anonyme Poclain. Device for winding flexible tubing carrying fluid under pressure. 3,516,433, 6-23-70, Cl. 137-355.26

Guinot, Gabriel L., to Societe Anonyme Poclain. Earth-working machine with movable counterweight. 3,536,218, 10-27-70, Cl. 214-142.

Guinot, Gabriel L., to Societe Anonyme Poclain. Device for detecting the end of travel of jack pistons. 3,541,925, 11-24-70, Cl. 91-1.

Guizouarn, Louis; Perroud, Paul; and Pannetier, Raymond, to Commissariat a l'Energie Atomique. Devices for sampling air at high altitude. 3,521,493, 7-21-70, Cl. 73-421.5

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Guldenpfennig, Peter M., to Entwicklungsring Sud GmbH. Method and apparatus for producing an omnidirectional radio signal. 3,534,366, 10-13-70, Cl. 343-106.

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Gurevich, Leonid Mikhailovich. Hydraulic motor. 3,530,769, 9-29-70, Cl. 92-31.

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Gurgiolo, Arthur E., to Dow Chemical Company, The. Purification of ethers. 3,492,358, 1-27-70, Cl. 260-615.

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Gurgiolo, Arthur E., to Dow Chemical Company, The. Process for improving the flame retardancy of wood. 3,501,339, 3-17-70, Cl. 117-118.

Gurien, Harvey; Wagner, David Paul; and Rachlin, Albert Israel, to Hoffmann-La Roche Inc. Rosenmund process. 3,517,066, 6-23-70, Cl. 260-599.

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Gurley, Grey Manning, to AMP Incorporated. Apparatus for making electrical connections. 3,531,846, 10-6-70, Cl. 29-203.

Gurley, Jesse Fred, to Mobay Chemical Company. Diverter valve. 3,503,420, 3-31-70, Cl. 137-609.

Gurner, John Raymond; Fletcher, William Henry; and Pedley, Roger Martin, to Plessey Company Limited, The. Reeling apparatus. 3,545,693, 12-8-70, Cl. 242-54.

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Gurney, Ruth Marilene. Hygiene kit and case. 3,524,690, 8-18-70, Cl. 312-245.

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Gurtler, Edward A., to United States of America, Army. Electronic timer with magnetic core counter and reset circuit. 3,518,447, 6-30-70, Cl. 307-88.

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Gury, John B., III. Vibration-damping assembly for a portable cloth-cutting machine. 3,503,160, 3-31-70, Cl. 51-246.

Guscott, John Kenneth; and Perlman, Ivan Lee, to Litton Systems, Inc. Signaling system having gain/slope adjustment for amplifier. 3,497,626, 2-24-70, Cl. 179-15.

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Guseman, James R.; and Rohaus, Donald E., to United States Steel Corporation. Cheek plate for briquetting apparatus. 3,550,205, 12-29-70, Cl. 18-21.

Gush, Donald P.; Uy, Manual C.; and Caicedo, Einstein E., to Grace, W. R., & Co. Apparatus for preparing a printing plate from a photosensitive composition. 3,520,606, 7-14-70, Cl. 355-85.

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Gustafson, Edwin P. Massaging device. 3,543,747, 12-1-70, Cl. 128-67.

Gustafson, Harry C., to Fuller Laboratories, Inc. Surgical type scrubbing sponge. 3,542,025, 11-24-70, Cl. 128-269.

Gustafson, Joel F. Treatment of waste effluents. 3,537,655, 11-3-70, Cl. 241-1.

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Gustafson, Kenneth H.; and Picard, Lloyd E., to Minnesota Mining and Manufacturing Company. Masking tape. 3,503,495, 3-31-70, Cl. 206-59.

Gustafson, Kjell Arne Hakan, to Aktiebolaget Bofors. Voltage stabilizing device connected to a detector for infrared radiation. 3,544,791, 12-1-70, Cl. 250-83.3

Gustafson, Lloyd E., to De Zurik Corporation. Lined gate valve. 3,545,480, 12-8-70, Cl. 137-375.

Gustafson, Richard L., to Rohm & Haas Company. Enrichment and or separation of an organic compound by adsorption processes. 3,531,463, 9-29-70, Cl. 265-211.5

Gustafson, Robert M., to International Business Machines Corporation. Press for ferrite cores. 3,491,407, 1-27-70, Cl. 18-16.5

Gustafson, Walter C. Method of applying hardened gripping areas to the spring clip of a shuttle. 3,519,031, 7-7-70, Cl. 139-207.

Gustafsson, Berth Ulrik, to Aktiebolaget Kalle-Regulatorer. Device for introducing cooling water into a conduit for superheated steam. 3,524,592, 8-18-70, Cl. 239-466.

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Hahn, Granville J., to Cosden Oil & Chemical Company. Rotocasting of polystyrene. 3,525,788, 8-25-70, Cl. 264-310.
Hahn, Gunter: *See—*
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Hahn, Gunter, to Messer Griesheim G.m.b.H. Torch cutting follower control device. 3,502,881, 3-24-70, Cl. 250-202.
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Hahn, Johann, to Zeiss Ikon Aktiengesellschaft. Photographic camera with flash exposure range. 3,515,047, 6-2-70, Cl. 95-11.
Hahn, Johann: *See—*
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Hahn, Linus K., to Industrial Nucleonics Corporation. Measuring corrosion on a painted metallic surface by means of back-scattered nuclear radiation. 3,539,808, 11-10-70, Cl. 250-83.3
Hahn, Manfred: *See—*
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Hahn, Raymond P., to Raymar, Inc. Connector for tubular members. 3,516,697, 6-23-70, Cl. 287-125.
Hahn, Richard, to Soundolier Manufacturing Company, Inc. Luminated guard rail assembly. 3,544,782, 12-1-70, Cl. 240-2.
Hahn, Robert S., to Heald Machine Company, The. Boring bar with means to reduce vibrations. 3,499,350, 3-10-70, Cl. 77-58.
Hahn, Robert S., to Heald Machine Company, The. Apparatus for the generation of a surface of revolution by the electro-chemical process. 3,547,795, 12-15-70, Cl. 204-212.
Hahn, Robert S.; and Keefe, Thomas R., to Heald Machine Company, The. Machine tool. 3,492,894, 2-3-70, Cl. 77-3.
Hahn, Robert S.; and Price, Robert L., to Heald Machine Company, The. Grinding wheel tester. 3,540,269, 11-17-70, Cl. 73-78.
Hahn, William Peter: *See—*
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Hahn, Winfried, to Holstein & Kappert Maschinenfabrik Phonix GmbH. Machine for loading and unloading of pallets. 3,517,831, 6-30-70, Cl. 214-6.
Hahn, Wolf-Diether, to Inventa AG fur Forschung und patentverwertung, mesne. Continuous manufacture of polymers. 3,544,522, 12-1-70, Cl. 260-75.
Hahne, Walter B., to Pre-Cast Concrete Products, Limited. Self-cleaning ledge construction for meter boxes and the like. 3,501,874, 3-24-70, Cl. 52-20.
Hahs, Thomas S.: *See—*
Durand, Robert D.; and Hahs, Thomas S.,3,495,911.
Hahs, Walter R.: *See—*
McDonald, Earl G., Jr.; and Hahs, Walter R.,3,544,979.
Hai, Thai Ngo; and Bernadet, Henri-Francois, to CSF-Compagnie Generale de Telegraphie Sans Fil. Bidirectional ferrite phase shifter utilizing nonreciprocal phase shifting means. 3,500,261, 3-10-70, Cl. 333-31.
Haidegger, Hans, to Ebauches S.A. Holder for flanged containers. 3,487,948, 1-6-70, Cl. 211-71.
Haidegger, Hans, to Ebauches S.A. Packaging insert for parts. 3,537,575, 11-3-70, Cl. 206-18.
Haider, John V.; and Carpenter, James H., Jr. Workpiece treating apparatus. 3,518,795, 7-7-70, Cl. 51-9.
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Haigh, Daniel H., to Dow Chemical Company, The. Separation of liquid organic materials from substrates. 3,520,806, 7-21-70, Cl. 210-40.
Haigh, Daniel H.; Hall, Richard H.; and Cohrs, William E., to Dow Chemical Company, The. Reversible gelatin of liquid hydrocarbon fuels. 3,527,582, 9-8-70, Cl. 44-56.
Haight, Robert Eugene; and Sullivan, Thomas Milo, to Deere & Company. Final drive lubricating device. 3,515,246, 6-2-70, Cl. 184-11.
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Hain, Robert W.; and Warn, Richard A., Sr., to Washington Forge, Inc. Dropdown type knife box. 3,490,601, 1-20-70, Cl. 211-60.
Hainault, Marcel, to Alexandre & Cie, Societe Anonyme. Diagnostic X-ray table having a tiltable surface made of a plurality of connected sections. 3,504,179, 3-31-70, Cl. 250-55.
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Hainaut, Daniel: *See—*
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Haines, Allan D., to National Machinery Company, The. Machine for making bolts or the like. 3,496,581, 2-24-70, Cl. 10-11.
Haines, George W., Jr., to Sprague Electric Company. Linear amplifier with AC gain temperature compensation and DC levelshifting. 3,531,733, 9-29-70, Cl. 330-30.
Haines, George W., to Sprague Electric Company. Transistor with compensated depletion-layer capacitance. 3,504,203, 3-31-70, Cl. 307-299.
Haines, Lawrence A.: *See—*
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Haines, Robert C., Jr.: *See—*
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Haines, Robert M., to Union Oil Company of California. Regulation of small electrical potentials over a wide load range. 3,526,825, 9-1-70, Cl. 323-16.
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Hair, Eddy R., to Procter & Gamble Company, The. Process for preparing instant coffee. 3,493,388, 2-3-70, Cl. 99-71.
Hair, Eddy R., to Procter & Gamble Company, The. Separate grinding of various coffee types to control flavor contribution. 3,544,331, 12-1-70, Cl. 99-68.
Hair, Eddy R.; and Dasher, Donovan Francis, to Procter & Gamble Company, The. Countercurrent slurry extraction of coffee expeller cake. 3,529,968, 9-22-70, Cl. 99-71.
Hair, Eddy R.; and Strang, David A., to Procter & Gamble Company, The. Process for preparing instant coffee. 3,493,389, 2-3-70, Cl. 99-71.
Haire, Christopher Adrian, to Adams, L., Limited. Automatic fluid supply control apparatus. 3,500,826, 3-17-70, Cl. 128-142.2
Hairston, Bob L., to Forrest City Machine Works, Inc. Mobile apparatus for batching and applying liquid and particulate fertilizer material or the like. 3,491,949, 1-27-70, Cl. 239-127.
Hairston, Thomas J.; Hawkins, Jerry M.; and Edwards, Stephen P., to Dow Chemical Company, The. Bisphenol-epichlorohydrin resins cured with alkylidenebis (α,α'-diamino-2,6-xylenols). 3,494,889, 2-10-70, Cl. 260-47.
Haisley, Richard L.: *See—*
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Haisma, Jan; and Alting, Cornelis Leendert, to U.S. Philips Corporation, mesne. Laser construction. 3,503,004, 3-24-70, Cl. 331-94.5

Haisma, Jan; and Looijen, Adriaan, to U.S. Philips Corporation, mesne. Laser construction. 3,501,713, 3-17-70, Cl. 331-94.5
Haist, Grant Milford; Humphlett, Wilbert Jeptha; and Johnson, Dee Lynn, to Eastman Kodak Company. Activator precursors for stabilizers for photographic images. 3,531,285, 9-29-70, Cl. 96-61.
Haist, Grant M.; and Burness, Donald M., to Eastman Kodak Company. Dry stabilization of photographic images. 3,506,444, 4-14-70, Cl. 96-61.
Haisty, Robert W.: *See—*
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Hait, Paul W., to Varian Associates. Vacuum connector including hemispherical elements interconnected in faced-away relation. 3,490,490, 1-20-70, Cl. 137-565.
Hait, Paul W., to Varian Associates. Spherical connector having vacuum lines joined thereto via welded joints internal of the sphere. 3,499,669, 3-10-70, Cl. 285-189.
Hait, Paul W., to Varian Associates. Sealed joint formed with aromatic polyimide. 3,542,381, 11-24-70, Cl. 277-207.
Haite, Heinz, to Pose-Marre Edelstahlwerk G.m.b.H. Conveying roller for metallurgical furnaces. 3,511,482, 5-12-70, Cl. 263-6.
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Hajek, Gayler D., to Westinghouse Electric Corporation. High voltage to low voltage regulated inverter apparatus. 3,513,376, 5-19-70, Cl. 321-15.
Hajjar, Abraham L., to General Electric Company. Soap-filled dimethyldiphenylpolysiloxane grease. 3,544,464, 12-1-70, Cl. 252-42.1
Hakamata, Yoshio; and Nakamura, Kiyoji, to Fuji Shashin Film Kabushiki Kaisha. Apparatus for adjusting the position of a sheet of film on a support member. 3,508,479, 4-28-70, Cl. 95-11.
Hakamata, Yoshio; and Nakamura, Kiyoji, to Fuji Shashin Film Kabushiki Kaisha. Film loading device of a microfiche camera. 3,508,480, 4-28-70, Cl. 95-19.
Hakamata, Yoshio; and Nakamura, Kiyoji, to Fuji Shashin Film Kabushiki Kaisha. High resolving power photographic camera. 3,525,291, 8-25-70, Cl. 95-11.
Hakansson, Bror A.; and Nassil, Per B. Illuminated advertising and like sign assembly. 3,531,882, 10-6-70, Cl. 40-132.
Hakansson, Christer Lennart; Arvidsson, Arne Arvid; and Loken, Ingar, to Aktiebolaget Bofors. Nitration of alkyl benzenes with nitric and phosphoric acids. 3,488,397, 1-6-70, Cl. 260-645.
Hakansson, Christer Lennart; and Nilsson, John Martin, to Aktiebolaget Bofors. Method of producing aromatic nitro compounds. 3,507,924, 4-21-70, Cl. 260-645.
Hakata, Hiroshi; Maeda, Keizo; and Higuchi, Katsumi, to Shionogi & Co., Ltd. Photoelectric apparatus for tracking a moving object. 3,508,061, 4-21-70, Cl. 250-203.
Haker, Edwin J., to Rex Chainbelt Inc. Pulverizer-mixer with a vibratory tailboard. 3,504,598, 4-7-70, Cl. 94-40.
Hakes, Leo B.: *See—*
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Hakim, Salomon D., to Cordis Corporation. Ventricular catheter with valve and pump flushing means. 3,527,226, 9-8-70, Cl. 128-350.
Hakim, Salomon. Cerebro ventricular catheter. 3,516,410, 6-23-70, Cl. 128-350.
Hakki, Basil W., to Bell Telephone Laboratories, Incorporated. Solid state display and light sensitive devices. 3,536,830, 10-27-70, Cl. 178-7.3
Hakki, Basil W., to Bell Telephone Laboratories, Incorporated. Magnesium zinc telluride and electroluminescent device. 3,551,763, 12-29-70, Cl. 317-237.
Hakki, Basil W.; Thim, Hartwig W.; and Uenohara, Michiyuki, to Bell Telephone Laboratories, Incorporated. Bulk semiconductor diode devices. 3,490,051, 1-13-70, Cl. 220-5.
Hakluyt, John Philip Dabbs, to National Research Development Corporation. Oil fuel burning apparatus. 3,498,544, 3-3-70, Cl. 239-404.
Hakner, Robert. Automatic stamping mechanism for progressive stamping of metal articles. 3,534,582, 10-20-70, Cl. 72-405.
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Halaby, Josef. Telephone system for directing calls to persons instead of stations. 3,506,791, 4-14-70, Cl. 179-41.
Halaby, Josef. Pipe construction. 3,524,453, 8-18-70, Cl. 131-174.
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Halas, Edward. Superconducting apparatus. 3,521,091, 7-21-70, Cl. 310-10.
Halasa, Adel F., to Firestone Tire & Rubber Company, The. Sulfur vulcanizate of a diene rubber using a carbazinate derivative as accelerator. 3,496,153, 2-17-70, Cl. 260-79.5
Halasa, Adel F., to Firestone Tire & Rubber Company, The. Process for preparing copolymers of conjugated dienes with alkanyl aryl compounds. 3,506,631, 4-14-70, Cl. 260-83.7
Halasa, Adel F., to Firestone Tire & Rubber Company, The. Process for increasing molecular weight of live polymers. 3,506,639, 4-14-70, Cl. 260-94.7
Halasa, Adel F., to Firestone Tire & Rubber Company, The. 2-Benzothiazolinethiones. 3,538,109, 11-3-70, Cl. 260-306.
Halasa, Adel F.; and Hunter, Charles J., to Firestone Tire & Rubber Company, The. Uniform chlorostyrene copolymers with conjugated dienes. 3,497,484, 2-24-70, Cl. 260-82.1
Halasa, Adel F.; and Smith, George E. P., Jr., to Firestone Tire & Rubber Company, The. Process for butadiene polymerization using zirconocene or titanocene and lithium hydrocarbon reaction product as catalyst. 3,502,635, 3-24-70, Cl. 260-94.3
Halasa, Adel F.; and Tate, David P., to Firestone Tire & Rubber Company, The. Lithiation of ferrocenes. 3,509,188, 4-28-70, Cl. 260-439.
Halasz, Istvan; Bruderreck, Hartmut; and Schneider, Werner, to Scholven-Chemie Aktiengesellschaft. Gas divider system. 3,513,636, 5-26-70, Cl. 55-197.
Halasz, Istvan; and Gerlach, Hans-Otto, to Varian Associates, mesne. High porosity column for gas chromatography. 3,513,637, 5-26-70, Cl. 55-197.
Halasz, Istvan; and Kroneisen, Armin. Chromatograph injection membrane mount. 3,550,452, 12-29-70, Cl. 73-422.
Halasz, Peter Robert; and King, George Edward, III, to Becton, Dickinson and Company. Tubing holder. 3,550,619, 12-29-70, Cl. 137-595.
Halawa, Janusz; and Macha, Ewald. Apparatus for determining the stresses in a structure due to static and dynamic loading thereof. 3,495,079, 2-10-70, Cl. 235-193.
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Halbach, Carl R.; and Bickerton, Lewis D., to United States of America, Atomic Energy Commission, mesne. Fluidic oscillator. 3,513,868, 5-26-70, Cl. 137-81.5
Halberg, Gyula Peter. Direct view applanation tonometer. 3,531,984, 10-6-70, Cl. 73-80.
Halbert, Stuart, to Kilfrost Limited. Deicing aircraft windscreens. 3,537,900, 11-3-70, Cl. 134-42.
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Halcomb, Samuel P., to ACF Industries, Incorporated. Covered hopper car end frame construction. 3,490,387, 1-20-70, Cl. 105-248.
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Golden, Richard L.; and Yoo, Hyung-Duk D., 3,497,545.
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Halden, Horst; and Fehlauer, Jurgen, to Licentia Patent-Verwaltungs-G.m.b.H. Ship stabilizing system. 3,504,651, 4-7-70, Cl. 114-125.
Haldopoulos, Ioakim; and Young, Sherwood, to American Standard, Inc. Plastic trip lever for water closets. 3,518,703, 7-7-70, Cl. 4-67.
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Hale, Edward C., to Domtar Limited. Sandwich laminate comprising a substantially non-impregnated print inlay sheet between impregnated overlay and base cover sheets. 3,537,950, 11-3-70, Cl. 161-258.
Hale, Edward Chaloner; and Singer, Eva Yvonne, to Domtar Limited. Abrasion resistant plastic laminate and method of making same. 3,525,664, 8-25-70, Cl. 161-162.

Hale, Edward Choloner; and Kerekes, Peter Stephen, to Domtar Limited. Process of producing a styrene-modified phenolic resin and impregnating fibrous sheet material with the resin. 3,526,559, 9-1-70, Cl. 156-335.
Hale Fire Pump Company: *See—*
Eberhardt, Harry A., 3,499,388.
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Hale, Fred. Chain saw handle guard. 3,496,971, 2-24-70, Cl. 143-32.
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Hale, Gerald K.; Hale, Arthur W.; and Hale, Reginald D., to Spir-L-OK Industries Limited. Tube perforator. 3,491,639, 1-27-70, Cl. 83-179.
Hale, Gordon B.: *See—*
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Hale, Howard S.; and Weyrick, Robert C., to Information Development Corporation. Phase angle detector. 3,527,103, 9-8-70, Cl. 73-462.
Hale, Jesse R. Anticlastic cellular core structure having biaxial rectilinear truss patterns. 3,525,663, 8-25-70, Cl. 161-68.
Hale, Jesse R. Membrane structural module having double ruled quadric surfaces. 3,527,664, 9-8-70, Cl. 161-68.
Hale, John K., to Sperry Rand Corporation. Hay conditioner. 3,488,929, 1-13-70, Cl. 56-1.
Hale, John K., to Sperry Rand Corporation. Chain. 3,512,424, 5-19-70, Cl. 74-255.
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England, Michael J.; Donnell, Derrick; and Hales, Eric C.,3,543,512.
Hales, John H. Drapery pleating and folding apparatus. 3,506,169, 4-14-70, Cl. 223-32.
Hales, Kenneth Calvert; Heighton, Arthur Victor; and Scrine, Gerald Robin, to Shipowners Refrigerated Cargo Research Association. Closure for apertures in the wall of a container. 3,537,609, 11-3-70, Cl. 220-25.
Hales, Richard Thomas; and Oliver, Brian Cecil, to Hall-Thermotank International Limited. Expansion valve control including plural sensors. 3,537,272, 11-3-70, Cl. 62-157.
Halewijn, Harry J., to Synergistics, Inc., mesne. Photographic film-reel container. 3,550,767, 12-29-70, Cl. 206-52.
Haley, Alfred J., Jr.: *See—*
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Spencer, Donald B., 3,524,212.
Wolf, Lee A., 3,524,211.
Wolf, Lee A., 3,524,214.
Wolf, Lee A., 3,550,183.
Haley, Ernest K. Multiple head drilling apparatus. 3,501,982, 3-24-70, Cl. 77-24.
Haley, Ernest K. Multiple drill spindle shifting mechanism. 3,529,496, 9-22-70, Cl. 77-24.
Haley, Frank. Pipe coupling. 3,489,434, 1-13-70, Cl. 285-1.
Halfaker, Thomas C., to Emerson Electric Co. Lighting fixture with floating baffle frame. 3,514,593, 5-26-70, Cl. 240-78.
Halfen, Billy W. Photograph holder means. 3,534,675, 10-20-70, Cl. 95-100.
Halff, Albert H.; and Reid, Allen F. Apparatus for controlling the discharge of liquid from a reservoir. 3,499,585, 3-10-70, Cl. 222-416.
Halff, Albert H.; and Reid, Allen F. Process for removing aluminate from aqueous alkali metal hydroxide solutions. 3,511,606, 5-12-70, Cl. 23-184.
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Halfhill, Martin O.; and Wilford, Charles R., to Information Storage Systems, Inc. Temperature compensation for data storage device. 3,531,789, 9-29-70, Cl. 340-174.1
Halfmann, Heinrich, to International Standard Electric Corporation. Multistage crosspoint switching arrangement. 3,510,600, 5-5-70, Cl. 179-18.
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Halibrand, Henry T. Reversible shaft transmission. 3,505,894, 4-14-70, Cl. 74-379.
Halibrand, Henry T. In and out transmission. 3,520,205, 7-14-70, Cl. 74-405.
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Hall, Bradley P., to International Business Machines Corporation. Magnetic handling device. 3,518,593, 6-30-70, Cl. 335-285.
Hall, Brian Reginald; and Neale, Denis Manktelow. Method of and apparatus for testing a laminar material for irregularities of thickness. 3,523,246, 8-4-70, Cl. 324-61.
Hall, Clifford. In-mould inoculation of cast iron. 3,498,361, 3-3-70, Cl. 164-56.
Hall, Clifton W.; Radford, Clemmon H., deceased (by Radford, Voncile H., administratrix); and Evergreen, Ala, said Hall assor to said Radford Voncile H. Jig grinder. 3,526,060, 9-1-70, Cl. 51-90.
Hall, Cyril J.; and Peter, Rene, to RCA Corporation. Color temperature correction controlled by the color killer and color oscillator. 3,541,242, 11-17-70, Cl. 178-5.4
Hall, Daniel Luce; and Gregerson, Stanley Martin, to Deere & Company. Control valve means for a two-way hydraulic cylinder. 3,543,647, 12-1-70, Cl. 91-420.
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Hall, David A.: *See—*
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Hall, David Neville, to Lever Brothers Company. Collagen casings strengthened by treatment with the dialdehyde of a polysaccharide containing carboxyl groups. 3,523,027, 8-4-70, Cl. 99-176.
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Hall, David W., to Marathon Oil Company. Method of recovering aldehydes and ketones. 3,492,356, 1-27-70, Cl. 260-590.
Hall, David Wylie; and Spratley, Robert Sydney, to National Research Development Corporation. Decorticating apparatus. 3,540,504, 11-17-70, Cl. 146-13.
Hall, Dennis S., to USM Corporation. Shoe machines. 3,545,022, 12-8-70, Cl. 12-52.
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Hall, Herbert J.; and Jakoplic, Richard, to Research-Cottrell, Inc. Method and apparatus for automatic voltage control of electrostatic precipitators. 3,507,096, 4-21-70, Cl. 55-105.
Hall, Herbert J.; Robinson, Myron; and Shepard, Joseph, to Research-Cottrell, Inc. Discharge electrode configuration. 3,495,379, 2-17-70, Cl. 55-2.
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Hallene, Alan M.; Holuba, Henry J.; and Drexler, John J., to Montgomery Elevator Company. Elevator door control. 3,545,572, 12-8-70, Cl. 187-52.

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Halls, Lawrence M., to Sperry Rand Corporation. Disengageable belt and sheave drive with belt supports. 3,550,463, 12-29-70, Cl. 74-226.

Halls, Lawrence M.; and Cyr, Joseph H., to Sperry Rand Corporation. Harvester. 3,550,363, 12-29-70, Cl. 56-23.

Halls, Lawrence M.; and Lausch, Henry N., to Sperry Rand Corporation. Conditioner roll mounting. 3,505,796, 4-14-70, Cl. 56-1.

Halls, Lawrence M.; and Lausch, Henry N., to Sperry Rand Corporation. Interchangeable header for use with trail-type and self-propelled agricultural harvesting machines. 3,520,118, 7-14-70, Cl. 56-10.

Hallstein, Edward J.: *See—*
Mishkin, Sidney; Bidwell, Robert E.; Kurtz, Leonard D.; and Hallstein, Edward J.,3,545,440.

Hallstrom, Olof A., Jr. Reciprocating conveyor. 3,534,875, 10-20-70, Cl. 214-83.3

Hallstrom, Olof Henrik, to A/B Centralsug. Conveyance of material requiring hygienic disposal. 3,490,813, 1-20-70, Cl. 302-17.

Hallstrom, Olof Henrik, to AB Centralsug. Conveying system for containers. 3,512,735, 5-19-70, Cl. 243-16.

Hallsworth, Henry B., to Owen, Rubery, & Company Limited. Box closing apparatus. 3,538,586, 11-10-70, Cl. 29-208.

Hallum, Charles E.: *See—*
Fix, John W.; Hallum, Charles E.; and Kaufman, Warren F.,3,507,294.
Fix, John W.; Hallum, Charles E.; and Kaufman, Warren F.,3,507,296.

Hallway, Fred,: *See—*
Snyder, James H., 3,498,326.

Halm Instrument Co., Inc.: *See—*
Harrison, Henry, 3,497,205.
Harrison, Henry, 3,536,567.
Lyon, Floyd A.; and Konars, Clement R., 3,511,021.

Haloski, Frank, to Vacuum Can Company. Container and venting device. 3,504,822, 4-7-70, Cl. 220-44.

Halpaap, Herbert: *See—*
Bruckner, Klaus; Halpaap, Herbert; and Rossler, Hubert,3,502,217.
Kramer, Josef; Irmscher, Klaus; Halpaap, Herbert; and Freisberg, Karl-Otto,3,546,250.

Halpaap, Herbert, to Merck, E., A.G. Test for the early diagnosis of phenylketonuria, leucinosis and hypervalinemia. 3,540,850, 11-17-70, Cl. 23-230.

Halpern, Alfred, to Synergistics, a copartnership consisting of Sackler, Mortimer D., and Sackler, Raymond R. Dihydroquinidine polygalacturonate and dihydroquinidine galacturonate compositions. 3,525,790, 8-25-70, Cl. 424-180.

Halpern, Alfred; Sackler, Mortimer D.; and Sackler, Raymond R., to Synergistics, Inc. Certain quaternary ammonium and pyridinium salicylates acetylsalicylates, para-aminosalicylates and undecylenates. 3,498,991, 3-3-70, Cl. 260-295.

Halpern, Alfred; and Sasmor, Ernest J., to Synergistics, Inc. Antacid composition containing bimetallic salts of gluconic, glucuronic and galacturonic acids and method of using the same. 3,501,575, 3-17-70, Cl. 424-283.

Halpern, Alfred; and Sasmor, Ernest J., to Synergistics. Magnesium complex of dihydroxydiphenyl-isotin,4,4'- dihydroxydiphenyl-(2-pyridyl) methane,4,4'-dihydroxy- diphenyl-2-(aminophenyl-methane) and phenolphthalein. 3,526,635, 9-1-70, Cl. 260-297.

Halpern, Alfred: *See—*
Lange, Winthrop E.; Sasmor, Ernest J.; and Halpern, Alfred,3,538,126.
Sackler, Mortimer D.; and Halpern, Alfred,3,538,218.

Halpern, Ernst, to Williamsburg Steel Products, Co. Door seal construction. 3,496,676, 2-24-70, Cl. 49-307.

Halpern, Otto: *See—*
Alvarez, Francisco; and Halpern, Otto,3,491,129.

Halpern, William J.: *See—*
Damm, Carl A.; Eichmann, Albert C.; and Halpern, William J.,3,504,592.
Damm, Carl A.; Eichmann, Albert C.; and Halpern, William J.,3,538,488.
Damm, Carl A.; Halpern, William J.; and Hess, John R.,3,498,664.

Halpern, William. Boring tool. 3,503,285, 3-31-70, Cl. 77-58.

Halpern, William. Countersinking tool. 3,537,338, 11-3-70, Cl. 77-73.5

Hals, Finn A., to Avco Corporation. Means for and method of removing pollutants from products of combustion. 3,531,664, 9-29-70, Cl. 310-11.

Halsall, Vincent Michael; and Cosme, Peter Anthony, to Globe-Union Inc. Apparatus for fabricating battery cases. 3,509,603, 5-5-70, Cl. 18-42.

Halsey, Frederick T.: *See—*
Hughes, Brian; and Halsey, Frederick T.,3,518,581.

Halsey, Frederick T., to Northern Electric Company Limited. Active delay equalizer circuit. 3,509,481, 4-28-70, Cl. 330-30.

Halsey, Gordon, to Monsanto Chemicals Limited. Silicate ester compositions. 3,489,709, 1-13-70, Cl. 260-33.4

Halsey, Gordon, to Monsanto Chemicals Limited. Method of making a refractory shell mould utilizing silicate ester binder compositions. 3,509,935, 5-5-70, Cl. 164-25.

Halsey, Paul F.; and Tevis, Daniel C., to Adapa, Incorporated. Occupant propelled scaffold. 3,520,382, 7-14-70, Cl. 182-13.

Halsey, Paul F.; and Tevis, Daniel C., to Adapa, Incorporated. Jack with leveling means. 3,540,548, 11-17-70, Cl. 182-129.

Halstead, Arthur M., deceased (by Halstead, Alberta M., administratrix); and Nimylowicz, Osyp, to United States of America, Army. Coolant for propellant actuated gas generator. 3,515,518, 6-2-70, Cl. 23-281.

Halstead, Charles R.: *See—*
Arndt, Phillip G.; and Halstead, Charles R.,3,491,555.

Halstead, Clifford; and Reed, Jonathan, to Pye Limited. Magnetic induction couplings. 3,549,921, 12-22-70, Cl. 310-105.

Halstead, Floyd F.: *See—*
Ehrenfried, Albert D.; Pierce, Norton T.; Mager, Louis; and Halstead, Floyd F.,3,511,090.

Halstead, James R.; and Brown, Richard J., to United States of America, Air Force. Combined canine oxygen mask with harness. 3,505,998, 4-14-70, Cl. 128-146.7

Halstead, Jon S., to Western Manufacturing Company. Diagnostic lift. 3,539,036, 11-10-70, Cl. 187-8.54

Halstead, Marian. Fastener structure. 3,512,225, 5-19-70, Cl. 24-203.

Halstead, William S. Antenna structure with an integrated amplifier responsive to signals of varied polarization. 3,523,251, 8-4-70, Cl. 325-373.

Halstead, William S., to Newsrad Inc. System for automatic transmission and reception of repetitive programs. 3,534,266, 10-13-70, Cl. 325-48.

Halsted, Leonard R., to TRW Inc.Binary data transmission system using 'future', 'present' and 'past' bits for reference synchronization. 3,550,003, 12-22-70, Cl. 325-38.

Halstrick, Robert T.: *See—*
Gray, Robert; and Halstrick, Robert T.,3,522,920.

Halter, Douglas V.: *See—*
Teeter, Richard J.; Halter, Douglas V.; Jenkins, Ray T.; and Pyhel, Henry,3,494,798.

Halter, Douglas V.; and Teeter, Richard J. Storage battery with transparent top and baffled holes between cells. 3,546,023, 12-8-70, Cl. 136-166.

Halter, Howard M.; Fiore, Joseph V.; Cacciola, Anthony R.; and Ito, Thomas I., to American Machine & Foundry Company. Method making reconstituted tobacco. 3,528,434, 9-15-70, Cl. 131-140.

Halter, Howard M.; and Schmidt, Otto K., to American Machine & Foundry Company. Manufacture of reconstituted tobacco products. 3,500,833, 3-17-70, Cl. 131-140.

Haltmeier, Paul, to Fischer, Georg, Ltd. Multicolor pick change device for weaving machines. 3,542,085, 11-24-70, Cl. 139-122.

Haluska, Loren A., to Dow Corning Corporation. Polyoxyethylene siloxane branch copolymers. 3,518,288, 6-30-70, Cl. 260-448.2

Halverson, Frederick, to American Cyanamid Company. Bar code encoding and information retrieval. 3,492,660, 1-27-70, Cl. 340-173.

Halverson, Frederick, to American Cyanamid Company. Liquid lanthanide chelate limineseent system with synergic agent. 3,539,941, 11-10-70, Cl. 331-94.5

Halverson, Norman W.: *See—*
Herrendeen, Jerry L.; and Halverson, Norman W.,3,546,581.

Halverson, Phillip C.: *See—*
Preston, Howard G.; Knerr, Barclay R.; and Halverson, Phillip C.,3,531,117.
Sherer, Paul; and Halverson, Phillip C.,3,525,948.

Halverson, Steven L., to United States of America, Atomic Energy Commission. Plasma tuning means wherein the resonant frequency of a cavity resonator tracks the frequency of an ionizing control frequency. 3,525,953, 8-25-70, Cl. 333-73.

Halvorsen, Robert M., to Ex-Cell-O Corporation. Fuel spray nozzle. 3,520,480, 7-14-70, Cl. 239-404.

Halvorson, Earle M.; and Schwarz, Kurt. Vibration driven vehicle. 3,530,617, 9-29-70, Cl. 46-243.

Halvorson, James E. Egg processing machine. 3,532,144, 10-6-70, Cl. 146-2.

Halvorson, John A.; and Serbiak, Richard P., to Cutler-Hammer, Inc. Static shunt motor crane hoist control system with limit stop backout control. 3,535,605, 10-20-70, Cl. 318-258.

Halwig, Raymond L., to Eastman Kodak Company. Preparation of silver halide emulsions having high covering power. 3,519,426, 7-7-70, Cl. 96-94.

Ham, Donald M., to General Electric Company. Transit ticket having fare coding means for automatic fare collection systems. 3,531,627, 9-29-70, Cl. 235-61.12

Ham, George E.: *See—*
Byler, William H.; Ham, George E.; and Anspon, Harry D.,3,510,448.

Ham, George E., to Dow Chemical Company, The. 1-Aziridinyl alkyl phosphoramides. 3,538,080, 11-3-70, Cl. 260-239.
Schneider, James G.; Dick, Clarence R.; and Ham, George E.,3,519,687.
Symm, Richard H.; Ham, George E.; and Dick, Clarence R.,3,492,289.
Tomalia, Donald A.; and Ham, George E.,3,491,107.

Ham, John E.: *See—*
Dickmann, John L.; and Ham, John E.,3,540,326.

Ham, John E., to Jackson, Byron, Inc. Multi-directional control. 3,550,466, 12-29-70, Cl. 74-471.

Ham, John E.; and Nicolson, Garth F., to Jackson, Byron, Inc. Combined power tong and backup tong assembly. 3,518,903, 7-7-70, Cl. 81-57.16

Ham, John E.; and Willsey, Merrill K., to Jackson, Byron, Inc. Power pipe tong transmission assembly. 3,516,308, 6-23-70, Cl. 81-57.16

Hama, Akira; Watanabe, Tadaaki; Kikuchi, Shunji; and Kumagai, Norio, to Tokyo Shibaura Electric Co., Ltd. Low pressure mercury vapor discharge lamps including an alloy type getter coating. 3,549,936, 12-22-70, Cl. 313-178.

Hamabe, Takesi: *See—*
Suzuki, Takashi; and Hamabe, Takesi,3,551,303.

Hamachi, Toshio: *See—*
Uchida, Mitsuo; Nakamura, Yasumasa; Hamachi, Toshio; Ando, Akio; Yamazaki, Toru; Terao, Koichi; and Osumi, Shinzo,3,548,638.

Hamada, Arinobu: *See—*
Marukawa, Gohei; Oikawa, Takashi; and Hamada, Arinobu,3,551,143.

Hamada Printing Press Mfg. Co., Ltd.: *See—*
Shimizu, Shigeru, 3,536,322.

Hamada, Sotojiro: *See—*
Araki, Mutsuro; and Hamada, Sotojiro,3,520,790.

Hamada, Takao; and Morishima, Tsuyoshi, to Kabushiki Kaisha Ricoh. Negative-to-positive reversible copy sheet. 3,549,373, 12-22-70, Cl. 96-75.

Hamada, Toshio; and Sato, Kozaburo, to Nippon Electric Company Limited. Method of manufacturing a semiconductor container. 3,524,249, 8-18-70, Cl. 29-588.

Hamada, Yoshio: *See—*
Ono, Takahisa; Masuoka, Nobuo; Yoshioka, Masayuki; Hamada, Yoshio; Ikeda, Chuki; and Sato, Kimio,3,517,113.

Hamaj, Joseph C.; and Mellinger, Richard J., to St. John & Co. Unshackling apparatus. 3,535,733, 10-27-70, Cl. 17-24.

Hamakhr, John C., Jr.: *See—*
Roberts, George A.; and Hamakhr, John C., Jr.,3,497,399.

Hamalainen, Carl: *See—*
Reeves, Wilson A.; Hamalainen, Carl; Saint, Mard, Hubert H.; and Cooper, Albert S., Jr.,3,526,474.

Hamale Process Corporation: *See—*
Hauk, John, 3,514,295.

Hamanaka, Mitito: *See—*
Tokumitsu, Ichiro; Watanabe, Kiyoshi; Sue, Harufusa; and Hamanaka, Mitito,3,499,051.

Hamann, John A.: *See—*
Johnson, Ralph D.; Walters, Roger E.; and Hamann, John A.,3,518,717.

Hamann, Karl: *See—*
Nehring, Rudolf; Heidel, Klaus; and Hamann, Karl,3,551,520.

Hamann, Omer F., to Stromberg-Carlson Corporation. Optical interference filter means bombarded by CRT beam for selectively passing monochromatic light. 3,498,694, 3-3-70, Cl. 350-160.

Hamano, Hisashi, to International Knitlok Corporation, mesne. Method and apparatus for manufacturing knitted cloth having pile configuration. 3,530,687, 9-29-70, Cl. 66-84.

Hamano, Hisashi, to International Knitlok Corporation, mesne. Knitted product having a material-engaging surface. 3,539,436, 11-10-70, Cl. 161-89.

Hamard, Jacques: *See—*
Guerrier, Jean; and Hamard, Jacques,3,544,497.

Hamasaki, Joji: *See—*
Okamura, Soji; Murakami, Junzo; Hamasaki, Joji; and Takao, Kazuaki,3,523,294.

Hamashima, Yoshio: *See—*
Takamizawa, Akira; and Hamashima, Yoshio,3,502,674.

Hamatani, Fumiya: *See—*
Kikukawa, Ryosuke; Hamatani, Fumiya; Kuwabara, Masayoshi; and Mori, Akihisa,3,508,744.

Hambleton, James, to Joyce, Loebl, and Company Limited. Registering and integrating sphere colorimeter. 3,490,849, 1-20-70, Cl. 356-176.

Hambleton, Warner V.; and Unthank, Dean P., to Vogt, Henry, Machine Company, Inc. Welded header and tube assembly for steam generators. 3,515,101, 6-2-70, Cl. 122-365.

Hambley, Allan R., to Hazeltine Research Inc. Chrominance signal demodulator having a common drive circuit. 3,502,796, 3-24-70, Cl. 178-5.4

Hamblin, Robert J. J., to Universal Oil Products Company. Black oil conversion for maximum gasoline production. 3,551,323, 12-29-70, Cl. 208-58.

Hamblin, Robert J. J.: *See—*
Munro, William H.; and Hamblin, Robert J. J.,3,549,519.

Hambling, James Keith; and Jones, John Robert, to British Petroleum Company Limited, The. Dimerisation process. 3,532,764, 10-6-70, Cl. 260-683.15

Hambling, James Keith; Jones, John Robert; and Heljula, Kuldar, to British Petroleum Company Limited, The. Acid leaching of cobalt or nickel catalysts prior to polymer vaporization. 3,527,714, 9-8-70, Cl. 252-413.

Hambling, James Keith; and Woodhead, David Allinson, to British Petroleum Company Limited, The. Crystalline copolymers. 3,513,140, 5-19-70, Cl. 260-80.78

Hambric, James C., to K.M.F. Development Corporation. Internal-combustion engine. 3,502,054, 3-24-70, Cl. 123-13.

Hambric, James C., to K.M.F. Development Corporation. Modular housing for rotary engine. 3,514,239, 5-26-70, Cl. 418-195.

Hambric, James C., to K.M.F. Development Corporation. Gearing system for rotary engine. 3,523,003, 8-4-70, Cl. 418-195.

Hambric, James C., to K.M.F. Development Corporation. Variable compression ratio internal combustion engine. 3,524,435, 8-18-70, Cl. 123-13.

Hambrick, Lester N. Pole driver. 3,503,458, 3-31-70, Cl. 173-19.

Hambright, Duane E., to Sutton Tool Company. Method and means for surface finishing a work piece. 3,516,203, 6-23-70, Cl. 51-7.

Hamburg, Fokko W.: *See—*
Versteeg, Geert; Engel, Albertus J. G.; and Hamburg, Fokko W.,3,520,958.

Hamburgen, Arthur: *See—*
Fosdick, Theron; Hamburgen, Arthur; and Hennis, Robert B.,3,492,653.

Hamburger Flugzeugbau GmbH: *See—*
Weigel, Jurgen, 3,544,440.

Hamburger, Gerhart Lothar, to Sangamo Weston Limited. Price control and audience monitoring in subscription television and like systems. 3,508,005, 4-21-70, Cl. 178-6.

Hamby, Tyler W., Jr., to Shell Oil Company. Method of locating and plugging thief zones. 3,503,447, 3-31-70, Cl. 166-254.

Hamco Machines and Electronics Corporation: *See—*
Heinrich, Robert G., 3,492,762.

Hamdy, Mokhtar M., to Archer-Daniels-Midland Company. Protein food product and process. 3,537,859, 11-3-70, Cl. 99-17.

Hamel, Bernard Maurice, to Societe Francaise d'Equipments pour la Navigation Aerienne. Non-linear servo-control. 3,504,247, 3-31-70, Cl. 318-18.

Hamel, Bernard, to Societe Francaise d'Equipements pour la Navigation Aerienne. Semi-linear corrector network. 3,546,605, 12-8-70, Cl. 328-167.

Hamel, Carl, Spinn- und Zwirnereimaschinen AG: *See—*
Rettenmund, Hans, 3,517,497.

Hamel, Denis Marcel, to Pneumatiques Caoutchouc Manufacture et Plastiques Kleber-Colombes. Rubber and like material springs. 3,539,170, 11-10-70, Cl. 267-63.

Hamel, Edward E., to Aerojet-General Corporation. Cyclic sulfite or phosphonate of 2,2- dinitro-1,3-propanediol. 3,492,311, 1-27-70, Cl. 260-327.

Hamel, Edward E.: *See—*
Weyland, Herman H.; and Hamel, Edward E.,3,551,469.

Hamel, William Ernest: *See—*
Taylor, Clyde L.; and Hamel, William Ernest,3,523,410.

Hamelin, Donald R.: *See—*
Cotton, Richard A.; and Hamelin, Donald R.,3,503,250.

Hamelin, Raymond Armand: *See—*
Delzenne, Amand; Hamelin, Raymond Armand; Outin, Michel Marie Jacques; and Pelecier, Claude Paul Rene,3,503,185.

Hamer, Edward A. G.: *See—*
Shaines, Alfred; Kalish, Robert L.; and Hamer, Edward A. G.,3,547,272.

Hamer, Francis Michael: *See—*
Grove, Francis John; Wright, Donald Curtis; and Hamer, Francis Michael,3,543,979.

Hamer, Martin, to International Minerals & Chemical Corporation. Certain pyridyl esters alkane and aryl sulfonates. 3,535,324, 10-20-70, Cl. 260-294.8

Hamersley, Walter R. Differential interlock for a yarder or skidder. 3,502,302, 3-24-70, Cl. 254-185.

Hamill, Herbert R.: *See—*
Jacobs, Daniel A.; and Hamill, Herbert R.,3,509,066.

Hamill, Peter. Building structures. 3,500,601, 3-17-70, Cl. 52-236.

Hamill, Thomas M. Internal circulation inducing syrup concentrating vacuum pan. 3,498,357, 3-3-70, Cl. 159-27.

Hamill, Thomas M. Evaporation system. 3,527,281, 9-8-70, Cl. 159-17.

Hamilton, Alexander. Automatic grapple. 3,488,080, 1-6-70, Cl. 294-110.

Hamilton, Arthur R., 50% to Avis, Kenneth E. Washer having reciprocating work basket. 3,512,539, 5-19-70, Cl. 134-136.

Hamilton, Billy H.: *See—*
Babbitt, Howard S., III; and Hamilton, Billy H.,3,535,472.

Hamilton, Billy H.; and Wilhart, Helmut, to Bell Telephone Laboratories, Incorporated. Push-pull inverter with synchronized monostable drivers. 3,495,156, 2-10-70, Cl. 321-11.

Hamilton, Carole L.: *See—*
McConnell, Harden M.; Ogawa, Seiji; and Hamilton, Carole L.,3,507,876.

Hamilton, Charles R.: *See—*
Voida, Louis; Kell, Ralph W.; Hoelzen, Warren R.; and Hamilton, Charles R.,3,498,225.

Hamilton, Clarence O., II; Garceau, David S.; and Spilman, Raymond R., to Hamilton Cosco, Inc.Infant's chair. 3,495,873, 2-17-70, Cl. 297-345.

Hamilton Company: *See—*
McKinney, Carlton B., 3,551,273.
McKinney, Carlton B., 3,514,131.

Hamilton Cosco, Inc.: *See—*
Bowers, Russell L.; and Napier, Larry E., 3,492,210.
Brown, Jerry A.; and Hume, Clayton R., 3,550,896.
Hamilton, Clarence O., II; Garceau, David S.; and Spilman, Raymond R., 3,495,873.
Hume, Clayton R.; and Webb, Thomas G., 3,542,444.
Lay, Ralph B., 3,527,174.
Lay, Ralph B., 3,541,975.
Schroer, Charles E., 3,508,802.

Hamilton, Daniel C.: *See—*
Koonce, George W.; and Hamilton, Daniel C.,3,508,305.

Hamilton, David H.; and Miller, John J., to Addressograph-Multigraph Corporation. Registration gauge for a web burster. 3,540,638, 11-17-70, Cl. 225-96.

Hamilton, David. Extensible frame for hydraulic jacks. 3,549,125, 12-22-70, Cl. 254-86.

Hamilton Die Cast, Inc.: *See—*
Woltering, Joseph A., 3,516,480.

Hamilton, Donald A.: *See—*
Blackburn, Wayne E.; Hamilton, Donald A.; Inners, Lester A.; and Reid, George C.,3,497,320.

Hamilton, Donald N., to Diamond Shamrock Corporation. Chromic acid-organic dibasic acid coating compositions for metals. 3,535,166, 10-20-70, Cl. 148-6.2

Hamilton, Douglas D., 1/3 to Canadian International Paper Company, 1/3 to Quebec North Shore Paper Company, and 1/3 to Anne Paper Ltd. Modified felling head. 3,527,272, 9-8-70, Cl. 144-3.

Hamilton, Douglas L. P.: *See—*
Nunn, Ewing D., 3,506,959.

Hamilton, Edward E.; Lazar, Janos J.; and Jasper, Leslie L., to Texas Instruments, Incorporated. Station for testing various electronic devices. 3,531,718, 9-29-70, Cl. 324-73.

Hamilton, Edward R., to Rainhart Company. Laboratory sifter. 3,521,750, 7-28-70, Cl. 209-237.

Hamilton, Ferris F. Method and apparatus for airborne seismic exploration. 3,509,960, 5-5-70, Cl. 181-0.5

Hamilton, Ferris F. Airborne seismic input weight drop device and method. 3,542,151, 11-24-70, Cl. 181-0.5

Hamilton, Ferris F. Method of generating seismic impulses. 3,547,218, 12-15-70, Cl. 181-0.5

Hamilton, Francis W., to Chrysler Corporation. Throttle cable guide. 3,542,980, 11-24-70, Cl. 287-20.

Hamilton, Francis W., to Chrysler Corporation. Automobile exhaust muffler. 3,543,878, 12-1-70, Cl. 181-59.

Hamilton, Frank G., 1/3 to Salvucci, Vincent H., and 1/3 to Howard, Elston G. Baseball bat with training weight. 3,521,883, 7-28-70, Cl. 273-26.

Hamilton, Gerald P., to FMC Corporation. Processing conveyor. 3,521,740, 7-28-70, Cl. 198-208.

Hamilton, Harold J., to Singer-General Precision, Inc. Ion cleaning and vapor deposition. 3,528,387, 9-15-70, Cl. 118-49.1

Hamilton, Harry A.: *See—*
Carr, Norman L.; and Hamilton, Harry A.,3,541,003.
Carr, Norman L.; Hamilton, Harry A.; and Stewart, Meredith M.,3,491,020.
Carr, Norman L.; Hamilton, Harry A.; and Stewart, Meredith M.,3,551,352.

Hamilton, Hector O. Pubococcygeus muscle exerciser. 3,502,328, 3-24-70, Cl. 272-80.

Hamilton, James Chipman: *See—*
Marchese, James Salvatore; and Hamilton, James Chipman,3,506,730.

Hamilton, James E. Adjustable drill pipe stabilizer tool. 3,545,825, 12-8-70, Cl. 308-6.

Hamilton, James P.: *See—*
Lima, Daniel A.; and Hamilton, James P.,3,496,107.

Hamilton, James P., to FMC Corporation. Phosphate gel compositions. 3,492,139, 1-27-70, Cl. 106-287.

Hamilton, James P., to FMC Corporation. Gelled phosphate esters. 3,501,325, 3-17-70, Cl. 106-287.

Hamilton, James P.; and Lima, Daniel A., to FMC Corporation. Poly(vinyl chloride)-diallyl phthaltate molding powders. 3,496,253, 2-17-70, Cl. 260-884.

Hamilton, Joel A., to Mahaffy & Harder Engineering Company. Automatic packaging apparatus. 3,524,298, 8-18-70, Cl. 53-22.

Hamilton, Joel A.: *See—*
Mahaffy, Reid A.; and Hamilton, Joel A.,3,545,163.

Hamilton, John F.: *See—*
Fitch, Homer L.; and Hamilton, John F.,3,509,820.

Hamilton, John Kelvin; Herrick, Franklin W.; and Wilson, Jim D., to ITT Rayonier Incorporated. Production and recovery of methyl α-D- mannopyranoside and mixture of pure methyl glycosides. 3,507,853, 4-21-70, Cl. 260-210.

Hamilton, John Kelvin; Herrick, Franklin W.; and Wilson, Jim D., to ITT Rayonier Incorporated. Production and recovery of methyl α-D-mannrpyrano- side. 3,531,461, 9-29-70, Cl. 260-210.

Hamilton, John Kelvin: *See—*
Steinberg, John C.; Gray, Kenneth R.; and Hamilton, John Kelvin,3,520,707.

Hamilton, John S., Jr., to Boiler Equipment and Controls, Inc. Desuperheater control system. 3,515,102, 6-2-70, Cl. 122-479.

Hamilton, Judith P.: *See—*
Meyer, Harry M., Jr.; Parkman, Paul D.; Stewart, George L.; Hoppa, Hope E.; Meyer, Barbara C.; Douglas, Robert D.; and Hamilton, Judith P.,3,541,202.

Hamilton Kent Manufacturing Co.: *See—*
Rowe, Theodore S., 3,508,474.

Hamilton, Lyle A.; and Venuto, Paul B., to Mobil Oil Corporation. Production of aromatic condensation products. 3,496,239, 2-17-70, Cl. 260-619.

Hamilton, Lyle A.: *See—*
Garwood, William E.; and Hamilton, Lyle A.,3,489,810.
Givens, Edwin N.; and Hamilton, Lyle A.,3,499,941.

Hamilton, Martin W., to Eaton Yale & Towne, Inc. Crane operating radius indicator. 3,549,876, 12-22-70, Cl. 235-186.

Hamilton, Max E. Gyro stabilization apparatus. 3,511,454, 5-12-70, Cl. 244-79.

Hamilton, Ralph A., to Lockheed Aircraft Corporation. Laser beam alignment apparatus. 3,551,057, 12-29-70, Cl. 356-172.

Hamilton, Richard A.: *See—*
McKinney, Robert W.; and Hamilton, Richard A.,3,536,521.
Hamilton, Robert G.: *See—*
Dickard, Lester R.; and Hamilton, Robert G.,3,504,475.
Hamilton, Robert M.; and Heady, Robert E., to CPC International Inc. Eliminating undesirable taste from coffee and tea extracts and products. 3,528,819, 9-15-70, Cl. 99-71.
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Hamm, Philip C., to Monsanto Company. Phytotoxic compositions and methods. 3,544,302, 12-1-70, Cl. 71-90.
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Hansen, David L.; and Bush, Elizabeth T., to Nuclear-Chicago Corporation. Quaternary ammonium bases and liquid scintillation counting solvent. 3,506,828, 4-14-70, Cl. 250-71.5
Hansen, David O.; and Roy, Neal L., to TRW Inc. Light-sensitive circuit in which the effective load of a phototransistor is bootstrapped. 3,523,189, 8-4-70, Cl. 250-211.
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Hansen, George E.; and Korzenowski, Anton, to Crane Co. Gem ball valve. 3,531,085, 9-29-70, Cl. 251-315.
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Hansen, Gerald D., Jr.; and Guthrie, Elizabeth A., to Betz Laboratories, Inc. Inhibition of scale formation. 3,547,817, 12-15-70, Cl. 210-58.
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Hansen, Harold Valentine; Youngberg, Charles Harold; and Ford, Perry, Jr., to Deere & Company. Hitch device for interconnecting two implements to a tractor. 3,511,522, 5-12-70, Cl. 280-412.
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Hansen, Spenst M.; and Snoeberger, David F., to United States of America, Atomic Energy Commission. Gold recovery process. 3,545,964, 12-8-70, Cl. 75-101.
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Hansford, Rowland C., to Union Oil Company of California. Hydrocracking process and catalyst. 3,524,809, 8-18-70, Cl. 208-111.
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Hansford, Rowland C., to Union Oil Company of California. Conversion process and catalyst. 3,547,808, 12-15-70, Cl. 208-111.
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Hanson, Derrick S. Hand truck. 3,540,753, 11-17-70, Cl. 280-47.34

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Hanson, Francis V.; and Snyder, Paul W., Jr.; to Mobil Oil Corporation. Method and means for treating mixed phase vapor and liquid reactants under exothermic reaction conditions and temperature control. 3,541,000, 11-17-70, Cl. 208-108.

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Hanson, Roddney C.; Teague, Clyde E.; and Urdea, Myron G., to United States of America, Air Force. Liquid propellant expulsion control mechanism. 3,506,037, 4-14-70, Cl. 138-30.

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Hansson, Ants, to Continental Can Company, Inc. Flexing and spin flanging of can body edges. 3,498,245, 3-3-70, Cl. 113-120.

Hansson, Ants, to Continental Can Company, Inc. Rod-insert spin flanging head. 3,503,239, 3-31-70, Cl. 72-119.

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Hara, Shibeyoshi; Senoo, Masao; Uchida, Moriya; Yoshida, Tsunemasa; and Imai, Yoshio, to Teijin Limited. Novel aromatic polyamide imines, novel N-aryl substituted polybenzimidazoles derived therefrom and processes for preparation thereof. 3,518,234, 6-30-70, Cl. 260-78.

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Hardenberg, Horst, to Daimler-Benz Aktiengesellschaft. Injection-type internal combustion engine. 3,498,276, 3-3-70, Cl. 123-32.

Harder, Arthur J., Jr., to General Electric Company. Refrigerator cabinet construction. 3,489,477, 1-13-70, Cl. 312-236.

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Hargest, Thomas S.; and Sarles, Harry E., to Bio-Medical Systems, Inc. System and apparatus for transfer of human fluids. 3,496,878, 2-24-70, Cl. 103-152.

Hargis, Billy M., to American Lava Corporation. Ceramic-metallic composite substrate. 3,549,784, 12-22-70, Cl. 174-68.5

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Hartlapp, Gerhard; Klee, Helmut; and Koch, Josef, to Knapsack Aktiengesellschaft. Spray drying of liquids to form particulate solids. 3,499,476, 3-10-70, Cl. 159-4.
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Hartman, Robert B., to Remington Arms Company, Inc. Fluidic memory apparatus. 3,504,693, 4-7-70, Cl. 137-119.

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Hartmann, Franz-Josef; Menne, Heinz; Hanert, Eckehard; and Benteler, Helmut, to Benteler-Werke AG. Pipe joint. 3,534,986, 10-20-70, Cl. 285-55.

Hartmann, Gert; Haussmann, Gunter; and Nosch, Karl, to Telefunken Patentverwertungsgesellschaft m.b.H. Analog-digital multiplying circuit. 3,522,420, 8-4-70, Cl. 235-150.52

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Hartmann, Heinrich, to Geha-Werke GmbH. Arrangement for improving the writing properties of fiber-point pens and the like. 3,502,417, 3-24-70, Cl. 401-202.

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Hartmann, Helmut; and Stein, Werner, to Henkel & Cie G.m.b.H. Separation of mixtures of liquid and solid fatty acid compounds. 3,549,676, 12-22-70, Cl. 260-419.

Hartmann, Job-Werner; Schnell, Georg; Schmidt, Erwin; and Gress, Friedrich, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Magnetic recording media having high abrasion resistance. 3,542,589, 11-24-70, Cl. 117-235.

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Hartwell, Ronald Groff, to AMP Incorporated. Electrical connector having improved locking means. 3,551,880, 12-29-70, Cl. 339-89.

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Harvey, Donald M., to Eastman Kodak Company. Device for exposing and processing radiation sensitive units. 3,541,938, 11-24-70, Cl. 95-13.

Harvey, Donald M., to Eastman Kodak Company. Automatic exposure control system. 3,547,017, 12-15-70, Cl. 95-10.

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Hasegawa, Mitsuo, to Osaka Transformer, Co., Ltd., The. Apparatus for welding hollow workpieces from the inside. 3,510,626, 5-5-70, Cl. 219-125.

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Hasenwinkle, Earl D., to Weyerhaeuser Company. Apparatus for testing thin films, foils and other materials. 3,537,301, 11-3-70, Cl. 73-95.

Hasewend, Florian; Pichler, Hubert; and Mayerhofer, Walter, to Gebr. Bohler & Co. Aktiengesellschaft. Method and apparatus for drilling through soil and rock layers. 3,507,342, 4-21-70, Cl. 175-62.

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Hashimoto, Tsuguhito, to Matsushita Electric Works, Ltd., and Ikeda Electric Works, Limited. Discharge lamp starting device. 3,522,475, 8-4-70, Cl. 315-239.

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Kamegaya, Takeo; Takamura, Naoyuki; Inoue, Mitsuo; Someya, Akira; and Hashimoto, Tsunekazu,3,522,466.

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Hashimoto, Yasuhiro, to Tokyo Cabinet Kabushiki Kaisha. Coin controlled lock. 3,538,988, 11-10-70, Cl. 194-92.

Hashimoto, Yasuyuki; and Torii, Osamu. Pencil. 3,514,211, 5-26-70, Cl. 401-53.

Hashimura, Takeshi, to Citizen Tokei Kabushiki Kaisha. Timepiece drive. 3,509,437, 4-28-70, Cl. 318-129.

Hashioka, Tokuyasu; and Shinohara, Kesao, to Hope Kabushiki Kaisha, The. Safety ski heel binding. 3,497,230, 2-24-70, Cl. 280-11.35

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Hasiba, Horst H., to Gulf Research & Development Company. Relief-type jet bits. 3,548,959, 12-22-70, Cl. 175-393.

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Haskell, Clarence A., to General Motors Corporation. Tuned rotor squeeze-film bearing gyroscope. 3,505,882, 4-14-70, Cl. 74-5.

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Haskell, Stanley W., to Polaroid Corporation. Exposure control system. 3,529,523, 9-22-70, Cl. 95-10.

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Hasker, Jan; and Kaashoek, Johannes, to U.S. Philips Corporation, mesne. Wide deflection angle cathode ray tube with a lens for focussing the electron beam at an elongate spot on a screen and an astigmatic correcting lens. 3,524,094, 8-11-70, Cl. 313-76.

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Haskett, F. Barry: *See*—
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Haskin, William L., to United States of America, Air Force. Thermal regenerator. 3,523,574, 8-11-70, Cl. 165-10.

Haskins, Bernard J., to Rolls-Royce Limited. Overload released positive clutches. 3,493,089, 2-3-70, Cl. 192-48.8

Haskins, Frederick J.; and Balmer, Allan G., to General Dynamics Corporation. Method of forming thin films for ferroelectric devices. 3,496,008, 2-17-70, Cl. 117-215.

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Haskins, Lauren D., to Robertshaw Controls Company. Flow control with filter. 3,505,793, 4-14-70, Cl. 55-417.

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Hasquenoph, Jean; and Pouliquin, Marc, to Commissariat a l'Energie Atomique. Pump. 3,514,221, 5-26-70, Cl. 417-206.

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Hasselbacher, Roland E.; and Koch, Franklin O., Jr., to Caterpillar Tractor Company. Fluid pressure booster for sequentially releasing clutch and engaging brake. 3,540,557, 11-17-70, Cl. 192-18.

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Hata, Toshio; and Kawasaki, Keimin. Bearing elements carrying a ceramic coating. 3,514,319, 5-26-70, Cl. 117-105.2

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Hata, Yu; and Fujishima, Hiroki, to TDK Electronics Co., Ltd. Distributed stray capacity parametron devices. 3,506,842, 4-14-70, Cl. 307-88.

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Hatch, David E.; and Swenck, George F., to Reynolds Metals Company. Hinge construction and lighting fixture using same. 3,506,153, 4-14-70, Cl. 220-31.

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Hatch, George B., to Calgon Corporation. Corrosion inhibiting with combinations of zinc salts, and derivatives of methanol phosphonic acid. 3,532,639, 10-6-70, Cl. 252-389.

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Hatch, Melvin J., to Dow Chemical Company, The. Sulfonium modified water soluble surface coatings. 3,544,499, 12-1-70, Cl. 260-29.6

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Hatcher, Norman M.; and Young, Richard N., to United States of America, National Aeronautics and Space Administration. Automatic balancing device. 3,534,584, 10-20-70, Cl. 73-1.

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Hatlapa, Rolf Gunter. Ski binding with a toehold with a ski leash. 3,490,782, 1-20-70, Cl. 280-11.35

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Haubrich, Heinz, to Farbenfabriken Bayer Aktiengesellschaft. Phenyl-azo-naphthol lakes. 3,523,934, 8-11-70, Cl. 260-151.

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Hauchart, Jean Lucien Alexandre, to Societe Industrielle Bull-General Electric (Societe Anonyme). Magnetic core memory plane with several core quadrants. 3,490,012, 1-13-70, Cl. 340-174.

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Hauenstine, Edgar F., to Mallory, P. R., & Co., Inc. Variable resistance control with mounting means therefor. 3,519,974, 7-7-70, Cl. 338-197.

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Hauer, Franz: *See—*
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Kuehne, Heinz; Dietze, Manfred; and Hauer, Franz,3,499,873.

Hauer, Werner, to International Telephone and Telegraph Corporation. Telephone line transmission data system. 3,508,002, 4-21-70, Cl. 179-2.

Hauer, Werner. Multiplex voice and data transmission system. 3,529,088, 9-15-70, Cl. 179-15.

Hauer, Werner, to International Telephone and Telegraph Corporation. Conveyor arrangement. 3,550,748, 12-29-70, Cl. 198-38.

Hauer, Werner; and Hauer, Anna M. Siphon-resistant squeezable dispenser. 3,499,583, 3-10-70, Cl. 222-211.

Hauerbach, Markvard, to Stromberg Datagraphics Inc. Method of constructing a wired core memory system. 3,541,681, 11-24-70, Cl. 29-604.

Hauerkate, Wouter S. C., to Losinger & Co. A.G. Borehole measuring cable for extensometers. 3,489,000, 1-13-70, Cl. 73-88.

Hauff, Alfred M.: *See—*
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Hauff, Roy E.: *See—*
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Hauff, Roy E, to Massey-Ferguson Inc. Adjustable control stand. 3,492,889, 2-3-70, Cl. 74-523.

Hauffe, Dieter, to Hooker Chemical Corporation. Automatic control method. 3,516,876, 6-23-70, Cl. 148-6.15

Haug, Anton J., deceased (by Doyle, Marie J.; executrix). High consistency thickener for paper pulp. 3,490,361, 1-20-70, Cl. 100-37.

Haug, Ernst: *See—*
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Haug, Gerhard: *See—*
Franz, Herbert; Haug, Gerhard; Meyer, Friedhelm; Werner, Frithjof; Straif, Kurt; Steimer, Richard; Sayer, Johannes; and Reichelt, Hans,3,527,972.

Haug, Heinz, to Binder Magnete KG. Alternating-current magnet having radially disposed laminations along the magnet axis. 3,525,062, 8-18-70, Cl. 335-249.

Haug, Heinz, to Binder Magnete KG. Encapsulated electromagnetic actuator with the armature thereof being completely enclosed. 3,551,862, 12-29-70, Cl. 335-260.

Haug, Thorleif, to Westinghouse Electric Corporation. Turbine valve assembly erection. 3,533,710, 10-13-70, Cl. 415-121.

Haugen, John M. Picture container. 3,489,313, 1-13-70, Cl. 220-31.

Haugh, Chauncey E., Jr. Control means for controlling a producer in response to a variable condition of the motive means driving the producer. 3,529,434, 9-22-70, Cl. 62-230.

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Haught, Alan F.: *See—*
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Haugk, George, to Bell Telephone Laboratories, Incorporated. Switching system scanning arrangement. 3,551,603, 12-29-70, Cl. 179-18.

Haugwitz, Rudiger D., to Olin Mathieson Chemical Corporation. 2,2'Bis(pyridyl-N-oxide) dithiolcarbonates and trithiocarbonates. 3,515,726, 6-2-70, Cl. 260-294.8

Haugwitz, Rudiger D., to Olin Mathieson Chemical Corporation. Boron-containing salts of 2-mercaptopyridine- N-oxides. 3,517,017, 6-23-70, Cl. 260-294.8

Haugwitz, Rudiger D., to Olin Mathieson Chemical Corporation. Formaldehyde adducts of 2-mercaptopyridine-N-oxide. 3,517,018, 6-23-70, Cl. 260-294.8

Haugwitz, Rudiger D.; and Weisse, Guenter K., to Olin Mathieson Chemical Corporation. Process for preparing N, N'-disubstituted-N- hydroxy thioureas. 3,514,479, 5-26-70, Cl. 260-502.6

Hauk, John, to Hamale Process Corporation. Process for preparing a base for baking dark breads. 3,514,295, 5-26-70, Cl. 99-90.

Haulik, Leo J.: *See—*
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Haun, Robert D., Jr., to Westinghouse Electric Corporation. Apparatus for producing radiation patterns for forming etchant-resistant patterns and the like. 3,492,072, 1-27-70, Cl. 355-78.

Hauni Werke Korber & Co. KG: *See—*
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Hauni-Werke Koerber & Co., KG.: *See—*
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Haunschild, Willard M.; and Ellis, John R. B., to Chevron Research Company. Gas lift catalyst sampler. 3,487,695, 1-6-70, Cl. 73-421.

Haupricht, Edward G. Material handling apparatus. 3,523,562, 8-11-70, Cl. 141-80.

Haupt, Fritz, to Maag Gear Wheel & Machine Company Limited. Gear pump. 3,544,244, 12-1-70, Cl. 418-178.

Haupt, Karl: *See—*
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Hauptschein, Murray; Hager, Robert Bonner; and Allen, Thomas Clark, to Pennwalt Corporation. Fluorinated organic compounds and polymers thereof. 3,544,663, 12-1-70, Cl. 260-900.

Haurey, Donald I.; and Davis, Irwin J., to Compac Corporation, mesne. Water repellant perforated adhesive assembly with release sheet, article and method. 3,532,586, 10-6-70, Cl. 161-113.

Haus, Joachim, to Siemens Aktiengesellschaft. Housing for disc-shaped semiconductor device. 3,499,095, 3-3-70, Cl. 174-52.

Hause, Gilbert K.; and Wrigley, Clifford C., to General Motors Corporation. Differential drive axle. 3,520,213, 7-14-70, Cl. 74-714.

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Hausenblas, Helmut; and Schindler, Karl, to Rheinstahl Henschel A.G. Connecting device for a hydropneumatic spring member having an additional gas bubble. 3,527,452, 9-8-70, Cl. 267-1.

Hauser, Charles F., to Union Carbide Corporation. Catalysts for the preparation of acid halides. 3,547,960, 12-15-70, Cl. 260-408.

Hauser, Frank W., to Avia Instrument. Shank strength fastener. 3,492,906, 2-3-70, Cl. 85-1.

Hauser, Fred. Sprinkler. 3,526,363, 9-1-70, Cl. 239-206.

Hauser, Hans, to Foote, J. B., Foundry Co., The. Compact snow vehicle. 3,507,346, 4-21-70, Cl. 180-5.

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Hauser, Hugo, to Huntington Mechanical Laboratories, Inc. Valve and valve closure mechanism. 3,550,903, 12-29-70, Cl. 251-158.

Hauser, John A., to United States of America, National Aeronautics and Space Administration. High pressure gas filter system. 3,490,205, 1-20-70, Cl. 55-179.

Hauser-Lienhard, Hans Ulrich, to Bucher-Guyer AG. Maschinenfabrik. Juice extraction press. 3,541,951, 11-24-70, Cl. 100-107.

Hauser-Lienhard, Hans Ulrich, to Bucher-Guyer AG Maschinenfabrik. Hay harvesting machine. 3,546,867, 12-15-70, Cl. 56-370.

Hauser-Lienhard, Hans Ulrich, to Bucher-Guyer AG Maschinenfabrik. Hay harvesting machines. 3,546,868, 12-15-70, Cl. 56-377.

Hauser, Martin; and Kuhn, Christine Elizabeth, to American Cyanamid Company. 5-Carboxy-m-phenylene-diacetic acid. 3,547,989, 12o15-70, Cl. 260-515.

Hauser, Merle W.: *See—*
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Hauser, Norbert; and Greif, Kassian, to Neckar-Chemie Dr. Heinrich Kopp KG. Method of producing surfactant-modified starch. 3,537,893, 11-3-70, Cl. 127-71.

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Hausermann, Heinrich; and Rosenberger, Siegfried, to Geigy Chemical Corporation. Pyrazoline optical brighteners. 3,520,814, 7-21-70, Cl. 252-95.

Hausermann, Heinrich; and Rosenberger, Siegfried, to Geigy Chemical Corporation. Pyrazoline optical brighteners. 3,533,957, 10-13-70, Cl. 252-301.2

Hausermann, Heinrich; Schlapfer, Hans; and Tscharner, Christopher Johannes, to Geigy Chemical Corporation. Solid detergent containing the crystalline form of a bis-triazinylamino stilbene optical brightener. 3,522,185, 7-28-70, Cl. 252-89.

Hausermann, Heinrich; and Troxler, Eduard, to Geigy Chemical Corporation. Quaternary 3-aryl-7-triazinylamino-coumarin salts. 3,518,266, 6-30-70, Cl. 260-249.6

Hausermann, Heinrich: *See—*
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Hausfeld, Bernard J.: *See—*
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Hausig, Andreas; Jeske, Helmfried; and Spiegelberg, Karl, to VEB Qualitats- und Edelstahlkombinat. Method and device for controlling performance of plasma arc furnaces. 3,546,347, 12-8-70, Cl. 13-12.

Hausinger, Otto: *See—*
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Hausinger, Otto. Friction blocking differential for vehicles. 3,499,349, 3-10-70, Cl. 74-710.5

Hausinger, Otto, to Porsche, Dr.-Ing. H.c.F., K.O., Firma. Transmission shifting mechanism including locking means for preventing over-shifting. 3,533,301, 10-13-70, Cl. 74-475.

Hauska, Miklos; Schutz, Mihaly; and Kontra, Ferenc, to Chemolimpex Magyar Vegyiaru Kulkereskedelmi Vallalat. Water-dispersible aluminum pastes and powders, and process for making. 3,551,174, 12-29-70, Cl. 106-314.

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Hausler, Ernst A., to Yardney International Corporation. Method of forming an interelectrode separator for an accumulator. 3,505,185, 4-7-70, Cl. 204-56.

Hausmann, Else; and Hausmann, Heinrich. Device for holding and emptying tubes. 3,525,457, 8-25-70, Cl. 222-100.

Hausmann, Gerhard, to Siemens Aktiengesellschaft. Synchronous and asynchronous motors connected together for a constant speed output. 3,549,965, 12-22-70, Cl. 318-47.

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Hausmann, Werner Karl; Zbinovsky, Vladimir; and Shay, Anthony Joseph, to American Cyanamid Company. Antibiotic AC-541 and production thereof. 3,522,349, 7-28-70, Cl. 424-116.

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Haussmann, Gunter; and Muller, Klaus-Wilhelm, to Telefunken Patentverwertungsgesellschaft m.b.H. Compensating circuit for capacitor losses. 3,543,142, 11-24-70, Cl. 323-66.

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Havely, John E., to Phillips Petroleum Company. Movable blow pin for directional cooling. 3,488,801, 1-13-70, Cl. 18-5.

Haveman, Gerrit, to Dow Chemical Company, The. Separating and reclaiming of components from metallic-plastic laminate structures. 3,516,841, 6-23-70, Cl. 106-193.

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Havener, Leslie Newell, to Spring Steel Fasteners, Inc. Spring clip hanger for conduit and the like. 3,532,311, 10-6-70, Cl. 248-62.

Havens, Carl B.; and Marx, Heinz U., to Dow Chemical Company, The. Apparatus for the formation of seals in thermoplastic film. 3,499,817, 3-10-70, Cl. 156-498.

Havens, Glenn G., to Havens International. Method of coating a tube to form a semipermeable membrane. 3,524,757, 8-18-70, Cl. 117-95.

Havens, Glenn G.; and Hibbard, William D., to Havens International, mesne. Apparatus for continuously forming a tubular member of resin-impregnated fibers. 3,532,579, 10-6-70, Cl. 156-431.

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Haviland, Girard S., to Jacobs Manufacturing Company, The. Gear drive assembly for anti-wheel lock-up control device. 3,534,625, 10-20-70, Cl. 74-411.

Haviland, Girard S., to Jacobs Manufacturing Company, The. Combined chuck spindle and chuck locking collar. 3,545,776, 12-8-70, Cl. 279-63.

Haviland, Girard S.; and McCarthy, Donald J., to Jacobs Manufacturing Company, The. Electrical drill having an integrated chuck. 3,491,840, 1-27-70, Cl. 173-163.

Haviland, Girard S.; and McCarthy, Donald J., to Jacobs Manufacturing Company, The. Air chuck having air distributing valve. 3,521,894, 7-28-70, Cl. 279-4.

Haville, George D.; and Bayne, Robert T., to Advance Data Systems Corporation. Bill validation device with transmission and color tests. 3,496,370, 2-17-70, Cl. 250-219.

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Havlicek, Henry J., to General Electric Company. Monitor circuit for detecting the occurence of one or more of a plurality of events in a system. 3,527,987, 9-8-70, Cl. 317-33.

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Hawes, Ralph E., Jr.; Durand, Charles C., Jr.; Hiroshige, Kazuyuki; and Buchanan, Leonard, to General Dynamics Corporation. Body motion decoupler. 3,527,429, 9-8-70, Cl. 244-3.14

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Hawk, Dale W., to Allis-Chalmers Manufacturing Company. Apron and bowl lift mechanism. 3,499,236, 3-10-70, Cl. 37-129.

Hawk, Dale W., to Allis-Chalmers Manufacturing Company. Releasable joint having tapered parts. 3,537,735, 11-3-70, Cl. 287-20.3

Hawk, Elwin A., Sr., to Coast Metals, Inc. Control for powder feed or spray torch. 3,520,447, 7-14-70, Cl. 222-46.

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Hawkins, Barbara J. Educational devices. 3,510,961, 5-12-70, Cl. 35-9.

Hawkins, Charles G., to RCA Corporation. Tape basket stripper apparatus. 3,514,024, 5-26-70, Cl. 226-97.

Hawkins, Clay Earnest: *See—*
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Hawkins, Colin W., to Polymer Corporation Limited. Adhesive composition. 3,549,574, 12-22-70, Cl. 260-27.

Hawkins, Curtis Owen, to Du Pont de Nemours, E. I., and Company. Spinneret punching tool. 3,525,282, 8-25-70, Cl. 83-695.

Hawkins, Edwin George Edward; Millidge, Alfred Frank; and Stanley, Herbert Muggleton, to Distillers Company Limited, The. Preparation of acyloxy-alkane carboxylic acids. 3,492,339, 1-27-70, Cl. 260-488.

Hawkins, Frederick E., to Certain-Teed Products Corporation. Method of coating. 3,498,820, 3-3-70, Cl. 117-54.

Hawkins, Frederick E.; and Cangelosi, Joseph L., to Certain-Teed Products Corporation. Method for making asbestos-cement shapes. 3,526,691, 9-1-70, Cl. 264-148.

Hawkins, Frederick E.; and Cangelosi, Joseph L., to Certain-Teed Products Corporation. Method for making asbestos-cement shapes. 3,529,981, 9-22-70, Cl. 106-99.

Hawkins, Gerald P., to Reynolds Metals Company. Apparatus for and method of forming an end closure for a can. 3,537,291, 11-3-70, Cl. 72-336.

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Hawkins, Jerry D.; and Reid, Bill G., to Continental Can Company, Inc. Cup blanking and forming method and tooling therefor. 3,543,559, 12-1-70, Cl. 72-335.

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Hawkins, Joseph K.; and Munsey, Clarence J., to Philco-Ford Corporation, mesne. Optical data processing system. 3,506,806, 4-14-70, Cl. 235-61.6

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Hawley, George F.; and Buettner, John H., to Ivanhoe Research Corporation, mesne. Methods and apparatus for automatically transferring and registering fabric workpieces. 3,544,098, 12-1-70, Cl. 270-58.

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Hayman, Nigel Ward, to Imperial Chemical Industries Limited. Process for heat treating travelling linear material. 3,539,668, 11-10-70, Cl. 264-80.

Hayner, Paul F.; and Eldridge, David George, to Sanders Associates, Inc. Fluid temperature sensitive valve. 3,515,346, 6-2-70, Cl. 236-34.5

Haynes, Don A., to FMC Corporation. Optical wheel alignment apparatus. 3,501,240, 3-17-70, Cl. 356-155.

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Haynes, George R.; McBeth, Clyde W.; Pilgrim, Kurt H. G.; and White, Lyle V., to Shell Oil Company. Control of nematodes with phosphorodiamidothioates. 3,538,220, 11-3-70, Cl. 424-220.

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Hechtle, Emil, to Radiant Pen Corporation. Rotatable display pen. 3,510,977, 5-12-70, Cl. 40-334.

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Heilenz, Siegfried. Mortar and pestle for grinding and mixing. 3,524,599, 8-18-70, Cl. 241-199.

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Heino, Richard N. Article counting and filling machine. 3,504,477, 4-7-70, Cl. 53-78.
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Helke, Robert C.; VanGilder, Charles E.; and Drew, Ralph H., Jr., to Koehler-Dayton, Inc. Cleaning system for portable toilet. 3,535,713, 10-27-70, Cl. 4-10.

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Heller, Laszlo; and Szucs, Laszlo, to Transelektro Magyar Villamossagi Kulkereskedelmi. Multiple reheating apparatus for steam turbines. 3,504,495, 4-7-70, Cl. 60-73.

Heller, Martin G. Automatic feeding mechanism. 3,548,998, 12-22-70, Cl. 198-24.

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Hellstrom, Borje Thorstensson, to LKB-Produkter AB. Method and an apparatus for manufacturing a glass knife for a microtome. 3,494,521, 2-10-70, Cl. 225-96.5

Hellstrom, Edward C.; and Wagar, Harold N., to Bell Telephone Laboratories, Incorporated. Method for measuring contact resistance in magnetically operable switches by accounting for flux interactions. 3,510,760, 5-5-70, Cl. 324-28.

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Helm, David F., to McKay Company, The. Coated arc welding electrode for minimizing porosity of the weld metal at the start of welding. 3,511,967, 5-12-70, Cl. 219-146.

Helm, David F., to McKay Company, The. Coated arc welding electrode for minimizing both porosity and variation in composition of the weld metal at the start of welding. 3,511,968, 5-12-70, Cl. 219-146.

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Helm, Erik Johannes; and Thorne, Richard Stanley Wrey, to Jorgensen, Alfred, Gaeringsfysiologisk Laboratorium A/S, (Alfred Jorgensen, Laboratory for Termentation Ltd.). Electrolysis of fermented beverages. 3,544,329, 12-1-70, Cl. 99-48.

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Helm, Gabriel E. Anti-downdraft chimney head. 3,504,616, 4-7-70, Cl. 98-68.

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Helms, John D., to Texas Instruments, Incorporated. Interconnections between layers of a multilayer printed circuit board. 3,541,223, 11-17-70, Cl. 174-68.5

Helms, John D.; and Brown, Herbert L., Jr., to Texas Instruments, Incorporated. Apparatus for severing circuit patterns on and forming conductive connections through a circuit board. 3,505,493, 4-7-70, Cl. 219-78.

Helms, John D.; and Brown, Herbert L., Jr., to Texas Instruments, Incorporated. Apparatus for severing circuit patterns on and forming conductive connections through a circuit board. 3,538,292, 11-3-70, Cl. 219-78.

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Helmus, Martin F., to Henkels and McCoy, Inc. Railroad cable laying apparatus. 3,546,887, 12-15-70, Cl. 61-72.1

Helmus, Weldon G., Jr.; Wasson, James C., Jr.; Pero, Paul J.; and Sain, Clarence A., to Penney, J. C., Company, Inc. Fabric measuring and cutting table. 3,524,373, 8-18-70, Cl. 83-522.

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Helrigel, Robert Arthur; Hook, Bernard Kenneth; and Suntheimer, Robert Gordon, to Bliss, E. W., Company. Horizontal ironing and doming press. 3,491,574, 1-27-70, Cl. 72-348.

Helsdon, Peter Bennett, to Marconi Company Limited, The. Insulated gate field effect transistors. 3,489,965, 1-13-70, Cl. 317-235.

Helsely, Grover Cleveland, to Robins, A. H., Company, Incorporated. 1-(1-Substituted-3-pyrrolidinyl)-3- arylsulfonylureas. 3,549,658, 12-22-70, Cl. 260-326.3

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Helsley, Grover Cleveland, to Robins, A. H., Company, Incorporated. 1-Carbamoyl-3-aroylpyrrolidines. 3,499,002, 3-3-70, Cl. 260-326.3

Helsley, Grover Cleveland, to Robins, A. H., Company, Incorporated. Certain 4-phenyl-1,2,3,6-tetrahydro- pyridyl-N-lower alkylene-ureas and derivatives. 3,523,950, 8-11-70, Cl. 260-295.

Helsley, Grover Cleveland. 1-Carbamoyl-4-phenoxypiperidines. 3,542,794, 11-24-70, Cl. 260-294.

Helsley, Grover Cleveland, to Robins, A. H., Company, Incorporated. 2-(1-Substituted-3-pyrrolidinyl)-isoindolines. 3,542,806, 11-24-70, Cl. 260-326.1

Helsley, Grover Cleveland, to Robins, A. H., Company, Incorporated. 2-(1-Lower-alkyl-3-pyrrolidinyl)-1, 3-propanediol dicarbamates. 3,546,245, 12-8-70, Cl. 260-326.3

Helsley, Grover Cleveland; and Welstead, William John, Jr., to Robins, A. H., Company, Incorporated. 1-Substituted-3-aroyl-pyrrolidines. 3,489,769, 1-13-70, Cl. 260-326.5

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Helton, Bernard L., Jr.; Davis, Robert E., Jr.; and Billue, Robert F., to Thiele Kaolin Company. Removal or titanium impurities from clay. 3,536,264, 10-27-70, Cl. 241-4.

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Helton, Eugene L., to Caterpillar Tractor Company. Resiliently interacting retaining pin. 3,494,245, 2-10-70, Cl. 85-8.3

Helton, Eugene L., to Caterpillar Tractor Company. Loader bucket cutting edge. 3,550,293, 12-29-70, Cl. 37-141.

Helton, James W. Archery bows and sight devices. 3,505,985, 4-14-70, Cl. 124-24.

Helton, Roy Lee. Component handling tool for inserting dual-in-line components into printed circuit boards. 3,535,763, 10-27-70, Cl. 29-203.

Helton, William J., to Foster Bros. Manufacturing Company. Hospital-type bed structure. 3,548,426, 12-22-70, Cl. 5-331.

Helvenston, Edward Phelps; and Stewart, Dorothy Ann, to PPG Industries, Inc.Double salt having the formula $(Na_2SO_4)_4 (Na_2CO_3)_9$. 3,493,326, 2-3-70, Cl. 23-50.

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Helwig, Hans; and Kempien, Hans-Joachim, to Siemens Aktiengesellschaft. Corpuscular ray device having a shiftable specimen stage. 3,497,689, 2-24-70, Cl. 250-49.5

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Brunberg, Karl Gunnar; and Hemdal, Goran Anders Henrik,3,524,459.

Hemdal, Goran Anders Henrik; and Brunberg, Karl Gunnar, to Telefonaktiebolaget L M Ericsson. Relay switch with diaphragm operated by explosive gas mixture. 3,539,746, 11-10-70, Cl. 200-83.

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Hemmert, Raymond A., to Columbia Gas System Service Corporation. Warm air furnace with radiant burner. 3,507,481, 4-21-70, Cl. 263-20.

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Hemminger, Charles E., to Esso Research and Engineering Company. Cracking process. 3,507,777, 4-21-70, Cl. 208-86.

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Henderson, Ian H. S.; Ladan, Stephan G.; and Bourgault, Pierre L. Anodization of a nickel body which has a coating of partially electronically insulating material. 3,498,893, 3-3-70, Cl. 204-32.

Henderson, James Neil, to Goodyear Tire & Rubber Company, The. Preparation of plastics. 3,506,632, 4-14-70, Cl. 260-85.3

Henderson, James Neil, to Goodyear Tire & Rubber Company, The. Isoprene polymerization. 3,514,437, 5-26-70, Cl. 260-94.3

Henderson, James W.; and Prymak, Leonard, to International Business Machines Corporation. Programmable sawtooth waveform generator. 3,514,632, 5-26-70, Cl. 307-228.

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Hiestand, Everett N.; Jensen, Erik H.; and Meister, Peter D., to National Cash Register Company, The, mesne. Encapsulation of lipophilic liquid-in-hydrophilic liquid emulsions. 3,549,555, 12-22-70, Cl. 252-316.

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High, Carl F. Charge forming system for port injection internal combustion engine. 3,492,981, 2-3-70, Cl. 123-119.

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Hill, Robert B.; and Palmer, Stephen W. Bicycle surfboard rack. 3,547,325, 12-15-70, Cl. 224-39.
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Hill, Robert R., to Wilson, Lee, Engineering Company, Inc. Method of heat treating steel strip or the like. 3,531,333, 9-29-70, Cl. 148-16.7
Hill, Robert W.; Anderson, Raymond P.; and Scroggins, Stanley V., to Gulf Research & Development Company. Thermoplastic alloys of finely divided polylactams polymerized with alkaline catalyst and cocatalyst in a high molecular weight olefinic polymer matrix and method of preparation. 3,539,662, 11-10-70, Cl. 260-857.
Hill, Robert W.; and Rea, James H., to Gulf Research & Development Company. Phenol-methacrylaldehyde varnish. 3,499,854, 3-10-70, Cl. 260-19.
Hill, Rodney G.; and Koenig, Peter O., to Twin Disc, Incorporated. Power shift transmission having synchronized clutch control. 3,548,981, 12-22-70, Cl. 192-3.5
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Hill, Roy K., to Sperry Rand Corporation. Logic control system for brushless D.C. motors. 3,531,702, 9-29-70, Cl. 318-138.
Hill, Royston Arthur Walter, to Imperial Chemical Industries Limited. Differential scanning calorimeter. 3,527,081, 9-8-70, Cl. 73-15.
Hill, Uno T.; and Rosenak, Irwin, to Inland Steel Company. Process for acid pickling. 3,536,601, 10-27-70, Cl. 204-147.
Hill, Wallace J., to Tudor Control Systems Limited. Magnetic, electric signal chopper. 3,543,200, 11-24-70, Cl. 335-72.
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Hill, William L., to Continental Oil Company. Horizontal notching tool. 3,529,684, 9-22-70, Cl. 175-422.
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Hills, Bruce, to AMP Incorporated. Stripper-crimper device. 3,541,654, 11-24-70, Cl. 29-33.5
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Hitzemann, Gerhard; Kulling, Achim; Luginsland, Hans-Hermann; and Weber, Helmut, to Titangesellschaft m.b.H. Process for the manufacture of a rutile pigment having high resistance to graying in resin systems. 3,547,671, 12-15-70, Cl. 106-300.
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Hitzler, Otto; Schodel, Ulrich; Jost, Heinz; and Koch, Ernst, to Rohm & Haas G.m.b.H. Preparation of ash-free lubricating oil additives. 3,496,249, 2-17-70, Cl. 260-836.

Hitzman, Donald O., to Phillips Petroleum Company. Anaerobic photosynthetic fermentation of hydrocarbons. 3,525,671, 8-25-70, Cl. 195-28.

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Hixon, Philip E.; and Fleisher, Marvin B., to Itek Corporation. Apparatus for viewing and reproducing film medium containing two or more related images. 3,523,729, 8-11-70, Cl. 355-46.

Hixson, Henry Haley, deceased (by Hixson, Jane S.; administrator). Process for roasting green coffee beans. 3,547,653, 12-15-70, Cl. 99-68.

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Hiyama, Yasuo: *See—*
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Hiyamuda, Shota, to Kubota Tekko Kabushiki Kaisha. Harvester. 3,531,921, 10-6-70, Cl. 56-22.

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Hjalsten, John Anders: *See—*
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Hjelmquist, Stig Gunnar. Power transmissions for lawnmowers. 3,527,034, 9-8-70, Cl. 56-26.

Hjelte, George. Rotatably mounted exercising device with support frames. 3,526,399, 9-1-70, Cl. 272-60.

Hjerten, Vilhelm E. S., to Incentive Research & Development AB. Method and an arrangement for measuring and recording the absorption of electromagnetic radiation. 3,505,524, 4-7-70, Cl. 250-83.3

Hjerten, Vilhelm Einar Stellan, to IRD Incentive Research & Development AB. Leakage-free sealing. 3,550,970, 12-29-70, Cl. 308-36.1

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Hladek, James J. Apparatus for automatically teeing golf balls. 3,533,631, 10-13-70, Cl. 273-201.

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Hlista, Joseph F., to Hughes Aircraft Company. Method for providing holes in glass. 3,551,176, 12-29-70, Cl. 117-5.5

Hnilicka, Milo P., Jr., to National Research Corporation. Sound recording for motion picture films. 3,508,817, 4-28-70, Cl. 352-27.

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Ho, Irving T., to International Business Machines Corporation. Transmission line simulation. 3,500,184, 3-10-70, Cl. 324-57.

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Hoadley, James Carlisle, to United States of America, Army. Optical isolator for electric signals. 3,493,760, 2-3-70, Cl. 250-199.

Hoagland, Bruce S.; and Kirschenbaum, Bernard, to Bell Telephone Laboratories, Incorporated. Magnetic memory assembly method. 3,543,397, 12-1-70, Cl. 29-604.

Hoagland, Frank V. N.; and Griner, Arthur J., to National Biscuit Company. Overwrap packing machines. 3,513,629, 5-26-70, Cl. 53-182.

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Hoagland, Porter, Jr., to Hoagland Instrument Company. Overcurrent responsive device. 3,544,943, 12-1-70, Cl. 337-139.

Hoaglund, James B.; Kautz, Franz A.; and Story, George A., to International Telephone and Telegraph Corporation. Rooftop multizone air conditioning units. 3,540,526, 11-17-70, Cl. 165-22.

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Hobb, Howard Frederick. Torque converters. 3,537,260, 11-3-70, Cl. 60-54.

Hobbins, James F.; and Cambria, Emanuel F., to Hurst-Campbell, Inc. Gearshift mechanism. 3,499,345, 3-10-70, Cl. 74-473.

Hobbs, Donald Sydney, to U.S. Philips Corporation, mesne. Delay line circuit for processing a PAL color television signal. 3,499,105, 3-3-70, Cl. 178-5.4

Hobbs, Horace P., Jr. Camera and lens support. 3,511,159, 5-12-70, Cl. 95-86.

Hobbs, Howard H.; Kunkle, Calvin S.; and Cataline, Acial L., to Bramco Inc. Washing and drying apparatus. 3,516,104, 6-23-70, Cl. 15-3.13

Hobbs, James C., to Can-Eng Holdings Ltd. Elevator structure having chain driven reciprocating plates. 3,524,532, 8-18-70, Cl. 198-218.

Hobbs, James W.; and Lupfer, Dale E., to Phillips Petroleum Company. Control of liquid level of refrigerants in serially connected indirect heat exchangers. 3,504,735, 4-7-70, Cl. 165-1.

Hobbs, Johnston R., to Rohr Corporation. Apparatus for detecting surface leakage. 3,524,342, 8-18-70, Cl. 73-40.

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Hobbs, Ralph E., Jr.; and Yarrison, Walter W., to USM Corporation. Shoes and shoemaking methods. 3,510,968, 5-12-70, Cl. 36-30.

Hobbs, William, Jr., to Sperry Rand Corporation. Feeder mechanism for a baling machine. 3,543,678, 12-1-70, Cl. 100-189.

Hobe, Harold E., to United States Steel Corporation. Ladle car with rotatable well. 3,509,830, 5-5-70, Cl. 105-455.

Hobe, Theodore J.; and Kiecker, Harris R., to Minnesota Mining and Manufacturing Company. Fabric pressing pad assembly. 3,513,574, 5-26-70, Cl. 38-66.

Hoberman, Max; and Leibowitz, Marshall, to Bergen Laboratories, Inc. Electrolytic timer. 3,512,049, 5-12-70, Cl. 317-230.

Hobgood, George W., Jr.: *See—*
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Hobhouse, Henry. Drilling condition responsive drive control. 3,550,697, 12-29-70, Cl. 175-26.

Hobrough, Gilbert L., to Itek Corporation. Dual image registration system with attenuation of high frequency error signals controlled by low frequency error signals. 3,513,257, 5-19-70, Cl. 178-6.5

Hobrough, Gilbert L., to Itek Corporation. Automatic correlating interferometer. 3,527,537, 9-8-70, Cl. 356-106.

Hobson, Charles F., Jr., to General Electric Company. Parallel-assisted circuit interrupting device. 3,515,940, 6-2-70, Cl. 317-11.

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Hobson, Lloyd L., to Basiloid Products Corporation. Top-lift, stack-handling truck. 3,507,413, 4-21-70, Cl. 214-381.

Hobson, Robert R., to General Electric Company. Thermionic power generation apparatus. 3,548,222, 12-15-70, Cl. 310-4.

Hobson, Robert R., to General Electric Company. Heat shielded thermionic converter. 3,551,708, 12-29-70, Cl. 310-4.

Hobson, Willis S.; Gregory, John T.; and Garrison, Marvin L., to Seymour Manufacturing Co. Automatic header control means. 3,498,037, 3-3-70, Cl. 56-210.

Hoch, Manfried L.; Phillips, Carmen S.; and Zitko, Ronald F., to International Harvester Company. Forage harvester drive for feed elements. 3,511,287, 5-12-70, Cl. 146-120.

Hoch, Monroe P.; and Barrera, Joseph, to Wilkes Pool Corporation. Rectangular swimming pool. 3,546,720, 12-15-70, Cl. 4-172.19

Hoch, Paul E., to Hooker Chemical Corporation. Polyhalogenated bicyclic urethanes. 3,511,870, 5-12-70, Cl. 260-468.

Hoch, Paul E.; and Stratton, George B., to Hooker Chemical Corporation. Polymer recovery process. 3,547,865, 12-15-70, Cl. 260-94.7

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Hoch, Richard C., to Grace, W. R., & Co. Synthetic leather materials. 3,520,764, 7-14-70, Cl. 161-82.

Hoch, Richard C., to Grace, W. R., & Co. Impregnated fibrous materials and process of making the same. 3,533,902, 10-13-70, Cl. 161-170.

Hoch, Samuel, to Tenneco Chemicals, Inc.Basic bis[(dihydrocarbyl)thiobenzoate tin] oxide. 3,505,370, 4-7-70, Cl. 260-429.7

Hoch, Samuel, to Tenneco Chemicals, Inc. Organotin mercaptacid esters. 3,530,157, 9-22-70, Cl. 260-429.7

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Hochberg, David Louis, to Pitney-Bowes, Inc. Diazotype copying process. 3,536,490, 10-27-70, Cl. 96-47.

Hochberg, David Louis, to Pitney-Bowes, Inc. Method for coating on a substrate. 3,545,997, 12-8-70, Cl. 117-17.

Hochberg, Jerome, to Du Pont de Nemours, E. I., and Company. Process for applying a coating composition of a microporous material. 3,524,755, 8-18-70, Cl. 117-47.

Hochberg, Jerome; and Palermo, John L., to Du Pont de Nemours, E. I., and Company. Glossy microporous sheet material. 3,501,326, 3-17-70, Cl. 117-76.

Hochberg, Milton. Illuminated plaque watch and the like. 3,508,044, 4-21-70, Cl. 240-6.43 .

Hocher, Robert W.: *See—*
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Hochgaf, Lester, to Bell Telephone Laboratories, Incorporated. Arrangement for providing partial service on a failed serially looped carrier system. 3,519,935, 7-7-70, Cl. 325-2.

Hochgesand, Gerhard; Heidl, Hellmut; Unland, Herbert; Doerges, Alexander; and Bratzler, Karl, to Metallgesellschaft Aktiengesellschaft. Scrubbing process for removing carbon dioxide from low-sulfur fuel gases or synthesis gases. 3,505,784, 4-14-70, Cl. 55-44.

Hochgesand, Gerhard; and Unland, Herbert, to Metallgesellschaft Aktiengesellschaft. Process of separating solvent vapor and water vapor from gases in scrubbing processes using a liquid organic absorbent. 3,492,788, 2-3-70, Cl. 55-48.

Hochgesand, Gerhard: *See—*
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Hochheiser, Jerome S. Non-sparking A-C connectors. 3,549,990, 12-22-70, Cl. 323-44.

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Hochman, Howard: *See—*
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Hochmuth, Frank W., to Combustion Engineering, Inc. Rotating liquid-gas contactor. 3,510,111, 5-5-70, Cl. 261-29.

Hochmuth, Udo; Ring, Wolfhard; and Strache, Hanns, to Chemische Werke Huls Aktiengesellschaft. Accelerated production of cis, trans, trans- cyclododecatriene-(1,5,9). 3,499,049, 3-3-70, Cl. 260-666.

Hochner, Walter L., to Kaumagraph Company. Transfer sheet having shaped thermoplastic transfer for stiffening or reinforcing fabric apparel and shoes. 3,520,760, 7-14-70, Cl. 161-40.

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Hochstein, Roland: *See—*
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Hochstetler, Eli. Scraper attachment for garden tractors. 3,548,956, 12-22-70, Cl. 172-801.

Hochstetler, Levi J. Electrical wiring protector. 3,515,797, 6-2-70, Cl. 174-135.

Hochstrasser, Elisabeth: *See—*
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Hochstrasser, Josef; and Messing, Bernd, to Hahn, Carl, Dr., KG. Tampon. 3,508,548, 4-28-70, Cl. 128-285.

Hochstrasser, Josef; and Wolff, Justus. Process and apparatus for treating elongated deformable articles. 3,515,138, 6-2-70, Cl. 128-270.

Hochstrasser, Jurgen: *See—*
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Hochstrasser, Robert, deceased (by Hochstrasser, Elisabeth; and0Hochstrasser, Jurgen; administrators). Rotary appliance for facilitating the driving or withdrawal of piles, pit-props and the like. 3,542,140, 11-24-70, Cl. 173-93.

Hock, Fromund, to Leitz, Ernst, G.m.b.H., Firma. Optical scanning means for use in photoelectric positioning determining apparatus. 3,493,775, 2-3-70, Cl. 250-235.

Hock, Fromund, to Leitz, Ernst, G.m.b.H. Optical measuring instrument for measurements in two coordinate directions. 3,502,415, 3-24-70, Cl. 356-167.

Hock, Fromund, to Leitz, Ernst, G.m.b.H. Interferometer employing a plurality of pairs of interfering beams. 3,529,894, 9-22-70, Cl. 356-113.

Hock, Fromund; and Heitmann, Knut, to Leitz, Ernst, GmbH. Incremental transducer comprising coded track grating traversed by light rays plurality of times and using polarized beam splitters. 3,489,908, 1-13-70, Cl. 250-237.

Hock, Fromund; and Heitmann, Knut. Photoelectric measurement system comprising movable grating. 3,508,834, 4-28-70, Cl. 356-152.

Hock, Fromund; Lang, Karl; and Lussem, Heribert, to Fa. Ernst Leitz GmbH. Multi-purpose optical measuring device for determining the position of an object in two coordinates. 3,533,702, 10-13-70, Cl. 356-167.

Hock, Fromund: *See—*
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Hock, Karl-Ludwig: *See—*
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Hockaday, Edmund E., to Weyerhaeuser Company. Universal guy attachment device. 3,538,237, 11-3-70, Cl. 174-43.

Hockenberry, Terry O.; and Williams, Everard M., to Siltronics, Inc. Electrode positioning control for electric discharge machining apparatus and the like. 3,510,621, 5-5-70, Cl. 219-69.

Hockenberry, Terry O.; and Williams, Everard M., to Siltronics, Inc. Control circuit for electric discharge machining apparatus. 3,549,850, 12-22-70, Cl. 219-69.

Hockenberry, Terry O.; and Williams, Everard M., to Siltronics, Inc. Power supply circuitry for increasing capacitance- charging rate and discharge duration in electric discharge machining apparatus. 3,549,851, 12-22-70, Cl. 219-69.

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Hocking, Loren P., to Stegner Electric Controls, Inc. Air pressure operated pilot light with testing pushbutton. 3,488,464, 1-6-70, Cl. 200-82.

Hocking, Martin B., to Dow Chemical Company, The. Production of isocrotonic acid. 3,539,548, 11-10-70, Cl. 260-526.

Hocking, Martin B., to Dow Chemical Company, The. Preparation of vinylacetic acid. 3,539,624, 11-10-70, Cl. 260-526.

Hockmeyer, Clive E.; and Ouellette, Marcel C., to American Velcro, Inc. Flash resistant fastening device and method of manufacture. 3,534,780, 10-20-70, Cl. 139-391.

Hockmuth, Udo; Wilke, Norbert; and Streck, Roland, to Chemische Werke Huls Aktiengesellschaft. Continuous process for the production of cyclooctadiene. 3,538,172, 11-3-70, Cl. 260-666.

Hocks, Peter: *See—*
Furst, Andor; Furlenmeier, Andre; Langemann, Albert; Waldvogel, Guy; Hocks, Peter; Jager, Albert; Kerb, Ulrich; and Wiechert, Rudolf,3,542,771.
Furst, Andor; Furlenmeier, Andre; Langemann, Albert; Waldvogel, Guy; Hocks, Peter; Kerb, Ulrich; and Wiechert, Rudolf,3,547,910.

Hocq, Robert Raymond, to Societe Franco-Hispano-Americaine Francispam. Gas lighter with concealed operating mechanism. 3,545,905, 12-8-70, Cl. 431-131.

Hocq, Robert R., to Societe Franco Hispano-Americaine Francispam. Lighters. 3,488,136, 1-6-70, Cl. 431-276.

Hocq, Robert R., to Societe Franco Hispano Americaine Francispam. Burner valve for gas-fueled pipe and cigarette lighters. 3,533,721, 10-13-70, Cl. 431-344.

Hocq, Robert R., to Societe Franco-Hispano-Ameriaine Francispam. Concealed hinges. 3,548,446, 12-22-70, Cl. 16-164.

Hocutt, Rudolph Hovan: *See—*
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Hodagaya Kagaku Kogyo Kabushiki Kaisha: *See—*
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Hodan, James J.: *See—*
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Dever, James L.; and Hodan, James J.,3,522,331.
Schall, William L.; and Hodan, James J.,3,488,407.

Hodara, Henri, to National Engineering Science Company. Laser beam tracking apparatus. 3,489,904, 1-13-70, Cl. 250-203.

Hodas, Blossom E. Vestibule-type sanitary napkin. 3,528,422, 9-15-70, Cl. 128-290.

Hodder, Richard L. Pelvic opening enlarger. 3,550,596, 12-29-70, Cl. 128-361.

Hodder, Wayne Kassell, to Bell & Howell Company. Information recording and reproduction apparatus with signal dispersion and restoration filters. 3,530,256, 9-22-70, Cl. 179-100.2

Hodder, Wayne K., to Bell & Howell Company. Precorrection loop for a signal modulation system. 3,536,860, 10-27-70, Cl. 179-100.2

Hoddy, George W., to Universal Electric Company, mesne. Bearing structure. 3,529,874, 9-22-70, Cl. 308-72.

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Hoden, Calvin B., to PPG Industries, Inc. Method for initiating gaseous plasmas. 3,541,379, 11-17-70, Cl. 313-231.

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Hodge, Edward B.; Hidy, Phil H.; and Wehrmeister, Herbert L., to Commercial Solvents Corporation. Macrocyclic lactones. 3,503,994, 3-31-70, Cl. 260-343.2

Hodge, Frederick J., to Minnesota Mining and Manufacturing Company. Dropout counter. 3,525,930, 8-25-70, Cl. 324-34.

Hodge, Gene D., to United States of America, Army, mesne. Multiplex system with number of channels controlled according to signal-to-noise ratio. 3,505,479, 4-7-70, Cl. 179-15.

Hodge, George R.; and Patsis, Angelos Vlasus, to Du Pont de Nemours, E. I., and Company. Glossy microporous sheet material. 3,551,830, 12-29-70, Cl. 117-76.

Hodge, James D.; and Weimar, Richard D., Jr., to Du Pont de Nemours, E. I., and Company. Polyesters of a phenol and tetramethyl adipic acid. 3,511,808, 5-12-70, Cl. 260-47.

Hodge, James Dwight, to Du Pont de Nemours, E. I., and Company. Linear polyesters from 2,2-bis(4-hydroxyphenyl)- propane and bis(4-carboxycyclohexyi)acids. 3,505,281, 4-7-70, Cl. 260-47.

Hodge, Leslie Victor. Machines for the manufacture of pastries. 3,500,767, 3-17-70, Cl. 107-8.

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Hodges, David A., to Bell Telephone Laboratories, Incorporated. Field effect transistor memory cell. 3,540,007, 11-10-70, Cl. 340-173.

Hodges, Howard T., to Eastman Kodak Company. Cascade developing mechanism for electrography. 3,511,214, 5-12-70, Cl. 118-637.

Hodges, Howard T., to Eastman Kodak Company. Method and apparatus for scan lighting in photocopy projection equipment. 3,528,738, 9-15-70, Cl. 355-70.

Hodges, Ralph R., to Engine Stove Company. Vent construction. 3,521,547, 7-21-70, Cl. 98-32.

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Hodgkins, John Alfred. Automatic control systems. 3,530,355, 9-22-70, Cl. 318-564.

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Hodgson, Duncan Barry: *See—*
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Hodgson, Frank. Thermoelectric generator. 3,540,940, 11-17-70, Cl. 136-208.

Hodgson, Gordon W.; Round, George F.; and Kruyer, Jan, to Research Council of Alberta, The. Separation of coal-oil suspensions. 3,505,201, 4-7-70, Cl. 208-8.

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Hodgson, James E., to Solid Fuels Corporation. Organic fusible solid fuel binders and stabilizers. 3,533,232, 10-13-70, Cl. 60-39.47

Hodgson, John B., to JWI Limited. Stainless steel fourdrinier cloth. 3,545,705, 12-8-70, Cl. 245-8.

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Hodgson, Robert A., to Maloney-Crawford Tank Corporation. Gas dehydration process. 3,545,177, 12-8-70, Cl. 55-30.

Hodgson, Russell L., to Shell Oil Company. Hydroprocessing of coal. 3,502,564, 3-24-70, Cl. 208-9.

Hodgson, Russell L., to Shell Oil Company. Process for conversion of coal. 3,527,691, 9-8-70, Cl. 208-10.

Hodgson, Russell L., to Shell Oil Company. Hydroconversion of coal with combination of catalysts. 3,532,617, 10-6-70, Cl. 208-10.

Hodgson, Russell L., to Shell Oil Company. Process for conversion of coal. 3,549,512, 12-22-70, Cl. 208-10.

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Hodil, Elmer R., Jr., to Olin Mathieson Chemical Corporation. Shielded check valve. 3,532,115, 10-6-70, Cl. 137-516.25

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Hoegerman, Henry J. Instrument for relieving itching under casts and shielding body during cast removal. 3,527,208, 9-8-70, Cl. 128-62.

Hoegerman, Henry J. Method and apparatus for closing wounds. 3,541,591, 11-17-70, Cl. 128-335.

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Hollenback, Charles J.; and Freund, Loren J. Animal suspension rack. 3,530,834, 9-29-70, Cl. 119-96.
Hollenbaugh, Roger C.: *See—*
Laughlin, Charles R.; and Hollenbaugh, Roger C.,3,495,260.
Laughlin, Charles R.; Hollenbaugh, Roger C.; and Allen, Walter K.,3,534,367.
Hollenbeck, William J.: *See—*
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Hooper, Harry Allison; Brackmann, Warren A.; and Hollenton, Frank,3,542,036.
Hooper, Harry Allison; Brackmann, Warren Arthur; and Hollenton, Frank,3,542,038.
Hollenton, Frank; and Ingalls, John L., to American Machine & Foundry Company. Pneumatic conveyor. 3,539,222, 11-10-70, Cl. 302-2.
Holler, Fritz: *See—*
Ebert, Alfred; Pirot, Ernst; Holler, Fritz; and Steinhilber, Georg,3,544,667.
Holler, Roger A.: *See—*
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Hollermann, Bernard H.: *See—*
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Hollermann, Henry H.: *See—*
Hollermann, Joseph J.; Hollermann, Henry H.; and Hollermann, Bernard H.,3,533,585.
Hollermann, Joseph J.; Hollermann, Henry H.; and Hollermann, Bernard H. Mounting connector. 3,533,585, 10-13-70, Cl. 248-188.1
Holley, Al F. Denture structure and method of making. 3,517,443, 6-30-70, Cl. 32-2.
Holley Carburetor Company: *See—*
Alberani, Julius; and Schorn, Carl F., 3,526,384.
Bentzen, Donald W.; and Baker, Jonathan, Jr., 3,502,048.
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Larson, William C., 3,545,486.
Manning, William O., 3,512,510.
Schorn, Carl F., 3,525,288.
Soeters, Raymond A., 3,515,105.
Holley, George M., Jr. Radio directional control system. 3,524,187, 8-11-70, Cl. 343-117.
Holley, James E., to Anken Chemical & Film Corporation. Diffusion transfer reversal processor. 3,505,944, 4-14-70, Cl. 95-89.
Holley, John D. Disc cutter. 3,550,701, 12-29-70, Cl. 175-122.
Holley, John E. Cameras. 3,534,670, 10-20-70, Cl. 95-31.
Hollibaugh, Richard E.; and Johnston, William S., to Westinghouse Air Brake Company. Automatic cycling drain valve. 3,509,901, 5-5-70, Cl. 137-204.
Holliday, Jerry D.: *See—*
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Holliday, L. B., & Company Limited: *See—*
Bailey, Peter Henshaw, 3,540,586.
Holliday, William H., to Reynolds Metals Company. Thermal break window construction. 3,487,580, 1-6-70, Cl. 49-372.
Holliday, William M.; Berdick, Murray; Bell, Saul A.; and Kiritsis, George C., to Sterling Drug Inc., mesne. Sustained relief analgesic composition. 3,488,418, 1-6-70, Cl. 424-35.
Holliday, William M.; Berdick, Murray; Bell, Saul A.; and Kiritsis, George C., to Sterling Drug Inc. Sustained relief analgesic compositions. 3,524,910, 8-18-70, Cl. 424-35.
Hollies, Norman R. S.; and Penoyer, John A., Sr., to United States of America, Agriculture. Clothing hygrometer. 3,550,439, 12-29-70, Cl. 73-73.
Holliman, James D.: *See—*
Holliman, James M., 3,534,865.
Holliman, James M., to Holliman, James D.,. Garment support. 3,534,865, 10-20-70, Cl. 211-86.
Holliman, Wilford E. Fluid seal device. 3,523,691, 8-11-70, Cl. 277-4.
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Hollingshead, R. M., Corporation: *See—*
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Hollingsworth, Charles M.: *See—*
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Hollingsworth, John D., to Reynolds Metals Company. Apparatus and method for making laminated panel means. 3,510,381, 5-5-70, Cl. 156-313.
Hollingsworth, John D. Foundation wire for card cylinders. 3,525,127, 8-25-70, Cl. 19-112.
Hollingsworth, John R., Company: *See—*
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Hollingsworth, Leon W., to Pioneer Motor Bearing Company. Hydrodynamically supported tilting pad journal bearing. 3,549,215, 12-22-70, Cl. 308-73.
Hollingsworth, Raft T. Multiplication card-combination array. 3,501,854, 3-24-70, Cl. 35-31.
Hollingworth, Derek, to United Aircraft of Canada Limited. Lubrication system for coupled engines. 3,512,610, 5-19-70, Cl. 184-6.
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Hollis, Clinton R., to International Paper Company. Apparatus for heat sealing the ends of bag blanks including bag gripping devices carried by two conveyors running in nested paths. 3,549,462, 12-22-70, Cl. 156-583.
Hollis, Grady W., to Davis, Jimmy L. Trash pick-up device. 3,527,492, 9-8-70, Cl. 294-19.
Hollis, Grady W. Poison applicators. 3,550,542, 12-29-70, Cl. 111-95.
Hollis, Morton; and Sherman, Kenneth N., 70% to Sherman, Kenneth M., and 30% to Cambridge Research and Development Group. Dispensing of detergent blends of predetermined strength. 3,508,682, 4-28-70, Cl. 222-48.
Hollis, Oscar LeRoy; and Acuff, Robert D., to Dow Chemical Company, The. Process for making organic polymer filled gas chromatographic columns. 3,547,684, 12-15-70, Cl. 117-95.
Hollis, Robert A.: *See—*
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Hollnagel, Harold S., to Kelsey-Hayes Company, mesne. Disc brake caliper unit. 3,506,097, 4-14-70, Cl. 188-73.
Hollnagel, Harold S.; and Hollnagel, Harold E. Floating friction brake for rotary disk. 3,530,493, 9-22-70, Cl. 188-72.4
Holloman, Charles J., to Trans-Lux Corporation. Signaling circuit. 3,496,386, 2-17-70, Cl. 307-254.
Holloman, Charles J., to Trans-Lux Corporation. Matrix storage system. 3,530,456, 9-22-70, Cl. 340-324.
Holloman, Charles J., to Trans-Lux Corporation. Receiving distributor circuit. 3,548,405, 12-15-70, Cl. 340-347.
Holloway, Daniel E., to Carborundum Company, The. Liquid transfer means for settling tanks. 3,550,783, 12-29-70, Cl. 210-522.
Holloway, David George; and Whitehouse, Cedric Victor, to Vida-Weld Pty. Limited. Machine for assembling and securing end caps to tubes. 3,501,824, 3-24-70, Cl. 29-203.

Holloway, Howard O.; and Trotto, Anthony, to Blakeslee, G. S., & Co. Tray unloading mechanism and conveyor stop means for dishwashing machine. 3,522,872, 8-4-70, Cl. 198-29.
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Thomas, Berwyn B.; and Holloway, Judson H.,3,529,925.
Holloway, Robert L., to Chisholm-Ryder Company, Inc. Fruit collector apparatus for harvesters. 3,538,694, 11-10-70, Cl. 56-330.
Holloway, Robert L., 'Automatic' Sprinkler Corporation of America, mesne. Face mask microphone mounting. 3,540,442, 11-17-70, Cl. 128-141.
Holloway, Robert L., to Automatic Sprinkler Corporation of America, mesne. Face seal. 3,545,436, 12-8-70, Cl. 128-141.
Holloway, Robert M.: *See—*
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Holloway, William S., to Madison Industries, Inc. Tool holder for throw-away inserts. 3,491,421, 1-27-70, Cl. 29-96.
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Blackmer, Paul W.; and Hollstrom, Gunnar E.,3,540,162.
Hollstrom, Stig Roland: *See—*
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Holluta, Josef; and Wuhrer, Josef, to Rheinische Kalksteinwerke GmbH. Carbon dioxide removal from water. 3,527,702, 9-8-70, Cl. 210-59.
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Holly, Edward A. Hand controlled leg brace. 3,502,071, 3-24-70, Cl. 128-25.
Holly, Frederick W.: *See—*
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Holly, Harry H., to Hollymatic Corporation. Molding apparatus with mixing chamber. 3,491,401, 1-27-70, Cl. 17-32.
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Holly, James A., to Hollymatic Corporation. Subdivided meat mixer and grinder. 3,506,019, 4-14-70, Cl. 259-46.
Holly, James A., to Hollymatic Corporation. Separator sheet feeder and patty molder. 3,526,924, 9-8-70, Cl. 17-32.
Holly, James A., to Hollymatic Corporation. Apparatus for producing mixed subdivided food material. 3,548,902, 12-22-70, Cl. 146-79.
Holly, James A., to Hollymatic Corporation. Subdivided meat mixer and method. 3,548,903, 12-22-70, Cl. 146-182.
Holly, John A., to Cary Instruments. Quiet interval pulse sampling. 3,502,979, 3-24-70, Cl. 324-102.
Holly, Robert D.: *See—*
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Hollyday, James H., to Sperry Rand Corporation. Chopper and baler assembly. 3,487,613, 1-6-70, Cl. 56-24.
Hollyday, James H.; and Hullinger, Howard J., to Sperry Rand Corporation. Baler with plunger drive separate from pickup and feeder drives. 3,513,651, 5-26-70, Cl. 56-343.
Hollymatic Corporation: *See—*
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Holly, James A., 3,506,019.
Holly, James A., 3,526,924.
Holly, James A., 3,548,902.
Holly, James A., 3,548,903.
Holm, Alfred J. Curb, sidewalk and conduit structure. 3,503,425, 3-31-70, Cl. 138-108.
Holm, Bengt Lennart; and Tornmarck, Sven Ivan Arvid, to Kockums mekaniska verkstads Aktiebolag. Method and apparatus for fluidizing activation of particulate, granular, viscous and similar materials. 3,519,310, 7-7-70, Cl. 302-29.
Holm, Carl H.; and Marechal, Nicholas, to United States of America, Navy, mesne. Deep ocean buoy assembly. 3,487,485, 1-6-70, Cl. 9-8.
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Holm, Gosta E. F. Method and device for screening of a fiber suspension. 3,506,121, 4-14-70, Cl. 209-273.
Holm, Kurt Anders; Nord, Sven Erik Leonard; and Berglund, Bengt Gunnar, to Uddeholms Aktiebolag. Apparatus for the degreasing of articles by means of a chlorinated hydrocarbon solvent. 3,498,885, 3-3-70, Cl. 202-160.
Holm, Le Roy W., to Union Oil Company of California. Flooding process for the recovery of oil. 3,537,520, 11-3-70, Cl. 166-273.
Holm, LeRoy W.: *See—*
O'Brien, Leo J.; and Holm, LeRoy W.,3,500,922.
Holm, LeRoy W., to Union Oil Company of California. Miscible flooding process using improved soluble oil compositions. 3,500,918, 3-17-70, Cl. 166-273.
Holm, LeRoy W., to Union Oil Company of California. Miscible flooding process using improved soluble oil compositions. 3,500,919, 3-17-70, Cl. 166-273.
Holm, LeRoy W., to Union Oil Company of California. Miscible flooding process using a soluble oil containing an optimum amount of water. 3,512,586, 5-19-70, Cl. 166-273.
Holm, Nils Sune, to Alfa-Laval AB. Method and apparatus for cleaning sterilizing plants. 3,533,840, 10-13-70, Cl. 134-22.
Holm, Norbert, to Noresco Manufacturing Co., Ltd. Selective intercom systems for apartment building door answering and the like. 3,532,820, 10-6-70, Cl. 179-1.
Holm, Per, to Uddeholms Aktiebolag. Switch for high amperage current. 3,539,750, 11-10-70, Cl. 200-170.
Holm, Robert L.; and Bracken, Robert F., to Litton Precision Products, Inc. Microwave attenuator comprising aluminum oxide and aluminum titanate usable in a microwave tube. 3,534,286, 10-13-70, Cl. 333-81.
Holm, William J.; and Bickford, Lyman D., to Riggs & Lombard, Inc. Seam protection system for cloth shearing machines. 3,534,188, 10-13-70, Cl. 200-61.14
Holman, Arthur L., to Owens-Corning Fiberglas Corporation. Environmental control device for a molten glass fiberizer. 3,547,610, 12-15-70, Cl. 65-7.
Holman, Harrison R.: *See—*
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Holman, Leonard: *See—*
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Holman, Merle R.; and Latter, Charles F., to Square D Company, mesne. Electrical panelboard with adjustable cover mounting means. 3,532,938, 10-6-70, Cl. 317-119.
Holman, William R., to United States of America, Atomic Energy Commission. Tensile test apparatus. 3,548,646, 12-22-70, Cl. 73-97.
Holmberg, Bo; and Hellstrom, Nils Erik, to Aktiebolag Hammars Mekaniska Verkstad. Wood dispensing control mechanism. 3,498,503, 3-3-70, Cl. 222-76.
Holmberg, Centre William, Jr. Connector assembly and tool. 3,546,663, 12-8-70, Cl. 339-223.
Holmberg, Gote Eskil Yngve: *See—*
Frei, Josef Hermann; and Holmberg, Gote Eskil Yngve,3,517,416.
Holmberg, Harry E.: *See—*
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Holmberg, Hartvig E.; and Holmberg, Harry E., to Beatrice Foods Co., mesne. Heel protector for snow skis. 3,501,161, 3-17-70, Cl. 280-11.13
Holmboe, Christian Fredrik; De Lorme, James F.; and Sommerud, Rolf Gunnar, to International Telephone and Telegraph Corporation. Multipulse detector for harmonically related signals. 3,518,556, 6-30-70, Cl. 328-133.
Holmboe, Christian Fredrik; Sommerud, Rolf Gunnar; and De Lorme, James Francis, to International Telephone and Telegraph Corporation. Detector for harmonically related signals. 3,526,841, 9-1-70, Cl. 328-133.
Holmboe, Leonhard W.; and Itzkan, Irving, to Sperry Rand Corporation. Ring laser having synchronized phase modulators for inhibiting mode pulling. 3,528,029, 9-8-70, Cl. 331-94.5
Holme, Bent Melchior Karlsen: *See—*
Larsen, Bendt Wegge; Valbjorn, Knud V.; and Holme, Bent Melchior Karlsen,3,491,939.
Holme, John C., to Astrosystems International, Inc. Enhanced output light source. 3,488,130, 1-6-70, Cl. 431-4.
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Holmes, Allie B., to Opti-Cap Inc. Vacuum compensating device for engine cooling system and method of installing same. 3,521,702, 7-28-70, Cl. 165-51.
Holmes, Arthur; Larue, Napoleon Lucien; and Grenier, Joseph Mederic, to Chemcell Limited. Melt extrusion of thermodegradable matter. 3,489,831, 1-13-70, Cl. 264-176.
Holmes, David James: *See—*
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Holmes, Dewey W., 1/2 to Bates, Joseph P. Automatic telephone alarm system. 3,511,933, 5-12-70, Cl. 179-5.
Holmes, Frank A.: *See—*
Du Shane, Raymond N., Jr.; and Holmes, Frank A.,3,541,632.
Holmes, Gene C. Tire rim for mounting an auxiliary safety wheel on a motor vehicle. 3,508,790, 4-28-70, Cl. 301-39.
Holmes, George T., III; and Singletary, June, Jr., to Corning Glass Works. Discriminator system utilizing a single mode cavity resonator. 3,529,259, 9-15-70, Cl. 331-9.
Holmes, Graham: *See—*
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Holmes, Harlan K., to United States of America, National Aeronautics and Space Administration. Velocity limiting safety system. 3,546,552, 12-8-70, Cl. 318-265.

Holmes, Homer E.: *See—*
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Holmes, Irwin R.: *See—*
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Holmes, James Stephen; Newman, Noel Howard Kenneth; and Taylor, Thomas John, to Rotax Limited. Linear induction motors. 3,543,060, 11-24-70, Cl. 310-13.

Holmes, Jerry D.; and Hagemeyer, Hugh J., Jr., to Eastman Kodak Company. Production of methyl-2-hydroxy-2- methylpropionate. 3,536,750, 10-27-70, Cl. 260-484.

Holmes, John F., to Sanders Associates, Inc. Tuned floating bodies. 3,487,484, 1-6-70, Cl. 9-8.

Holmes, John F., to Sanders Associates, Inc. Conversion of mat jack-up drill platforms to floating drill platforms. 3,515,084, 6-2-70, Cl. 114-0.5

Holmes, John G.: *See—*
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Holmes, John T.; Vissers, Donald R.; Gabor, John D.; and Knudsen, Irving E., to United States of America, Atomic Energy Commission. Uranium oxide fluorination with fluorine and fluorine interhalogens. 3,490,881, 1-20-70, Cl. 23-326.

Holmes, John T.: *See—*
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Holmes, Peter Desmond; and Thornhill, Alan Richard. Production of hydrogen containing gases. 3,515,514, 6-2-70, Cl. 23-212.

Holmes, Raymond Leslie: *See—*
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Holmes, Robert E.; and Martin, Robert O., to Thiokol Chemical Corporation. Quick change lip seal cartridge device. 3,521,890, 7-28-70, Cl. 277-35.

Holmes, Robert T.: *See—*
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Holmes, Ronald L. W., to Union Carbide Corporation. Outside change tuyere. 3,495,815, 2-17-70, Cl. 266-41.

Holmes, Ronald W., to Robertshaw Controls Company. Push button switch construction with positive plunger safety stop carried by a casing. 3,523,168, 8-4-70, Cl. 200-159.

Holmes, T. J., Co., Inc.: *See—*
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Holmes, Thomas: *See—*
Gough, Vernon E.; Roberts, Glyn B.; and Holmes, Thomas,3,532,147.
Roberts, Glyn B.; and Holmes, Thomas,3,543,827.

Holmes, Tunis L.; and Moore, Robert N., to Meta Chemical, Inc. Process for nickel-cobalt separation. 3,514,282, 5-26-70, Cl. 75-82.

Holmes, Vernon A., to Warwick Electronics Inc. Record changer package assembly. 3,506,114, 4-14-70, Cl. 206-46.

Holmes, William S., to Cornell Aeronautical Laboratory, Inc. Narrow-band, single-observer, television apparatus. 3,507,988, 4-21-70, Cl. 178-6.8

Holmes, William S.; and Richmond, George E., to Cornell Aeronautical Laboratory, Inc. Automatic photo-culture detection system for determining the presence and location of low curvature objects in photographic data. 3,497,704, 2-24-70, Cl. 250-233.

Holmgren, Stig: *See—*
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Holmlund, Chester Eric: *See—*
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Holmquest, John C., to Sola Basic Industries, Inc. Monitoring system for polyphase electric supply system. 3,535,591, 10-20-70, Cl. 317-27.

Holmquist, Howard W., to Monsanto Company. Plywood manufacture. 3,489,633, 1-13-70, Cl. 156-312.

Holmquist, Richard W., to Reuter, Inc. Apparatus for direct conversion of powered materials into parts. 3,548,455, 12-22-70, Cl. 18-16.

Holms, Walter I.: *See—*
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Holmstrom, Kjell Ingavr: *See—*
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Holobeam, Inc.: *See—*
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Holohan, Barth A., to Eversharp, Inc. Razor blade dispenser. 3,540,575, 11-17-70, Cl. 206-16.

Holotron Corporation: *See—*
Leith, Emmett N.; and Upatnieks, Juris, 3,545,835.
Nelson, Richard L.; and St. John, Daniel S., 3,529,083.
Sturdevant, Eugene J.; and Phillips, Le Roy D., 3,536,955.
Upatnieks, Juris, 3,539,241.

Holper, Frank, to Molon Motor & Coil Corporation. Motor for driving flexibly coupled gears. 3,543,064, 11-24-70, Cl. 310-83.

Holper, Frank. Clutch means for selectively coupling a single input to one or more plural outputs. 3,547,240, 12-15-70, Cl. 192-48.2

Holphane Company, Inc.: *See—*
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Holroyd, Lawrence Hamilton Howard. Garment hangers. 3,545,657, 12-8-70, Cl. 223-88.

Holscher, Knud, to G. & S. Allgood Limited. Doorknobs. 3,532,374, 10-6-70, Cl. 292-336.3

Holsinger, David J.; Rottering, Quintin N.; Rao, Pinnamenent Venkata Narayana; and Ficken, Donald D., to Case, J. I., Company. Anti-rollback mechanism. 3,521,781, 7-28-70, Cl. 214-764.

Holst, Christian C.: *See—*
Stuckey, Ronald L.; and Holst, Christian C.,3,530,420.

Holst, Edward H.; Edwards, Robert S.; and May, John E., to Texaco Inc. Manufacture of overbased calcium sulfonate lubricating oil compositions. 3,537,996, 11-3-70, Cl. 252-33.

Holstead, Colin, to Eastman Kodak Company. Electrophotographic reproduction process employing a light sensitive material and a photoconductive material. 3,525,612, 8-25-70, Cl. 96-1.

Holstead, Colin: *See—*
Sutherns, Edward A.; Bailey, Joseph; and Holstead, Colin,3,498,789.

Holstedt, Richard A.; Dadura, James G.; Krug, Robert H.; and Love, Doris, to Texaco Development Corporation. Sulfurized calcium alkylphenolate lubricant compositions and method of manufacture. 3,549,534, 12-22-70, Cl. 252-42.7

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Holstein, Frederick William, to Woodings-Verona Tool Works. One piece double rail anchor. 3,517,883, 6-30-70, Cl. 238-346.

Holstein, Frederick William, to Woodings-Verona Tool Works. Adjustable rail fastener for concrete ties. 3,528,610, 9-15-70, Cl. 238-346.

Holstein, John H. Label pickup and transfer apparatus. 3,536,570, 10-27-70, Cl. 156-566.

Holsten, Karl-Georg, to U.S. Philips Corporation, mesne. Circuit arrangement for connecting devices for picking up measuring values to be recorded. 3,543,583, 12-1-70, Cl. 73-341.

Holt, Arthur W.; and Hill, James D., to Control Data Corporation. Recognition system for reading machine. 3,519,990, 7-7-70, Cl. 340-146.3

Holt, Eric M.: *See—*
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Holt, Frank: *See—*
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Holt, Frederick Rodney, to Hickok Electrical Instrument Company, The. Digital ohmmeter with modified wheatstone bridge. 3,536,997, 10-27-70, Cl. 324-62.

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Holt James F., to United States of America, Air Force. Scanning analyzer for determining characteristics of an ionized plasma. 3,519,927, 7-7-70, Cl. 324-24.

Holt, Jan D.; and Thornton, Duane V., to ACF Industries, Incorporated. Side stake construction for railway flat cars. 3,550,537, 12-29-70, Cl. 105-381.

Holt, Jan D.: *See—*
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Holt, John M.: *See—*
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Holt, Joseph S., Jr., to Foxboro Company, The. Pneumatic recorder pen motor. 3,526,902, 9-1-70, Cl. 346-139.

Holt, Thomas Eric; and Beaudet, Emilien, to Building Products of Canada Limited. Drying of bitumen emulsion. 3,536,523, 10-27-70, Cl. 117-119.6

Holt, William David, to Lucas, Joseph, (Industries) Limited. Self-cancelling switches. 3,534,313, 10-13-70, Cl. 337-39.

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Hooper, George H., 1/2 to Finkelstone, Douglas A. Process for exterminating predator marine life. 3,498,264, 3-3-70, Cl. 119-4.

Hooper, George Wallace, to Imperial Chemical Industries Limited. Oxidation process. 3,488,395, 1-6-70, Cl. 260-621.

Hooper, Gerald H.: *See—*
Harris, John R.; Tse, John W.; and Hooper, Gerald H.,3,550,141.

Hooper, Gordon S.: *See—*
Beck, Dale F.; Hooper, Gordon S.; and Moorehead, Harvey R.,3,537,451.

Hooper, Harrison G. Tape magazine. 3,502,254, 3-24-70, Cl. 226-196.

Hooper, Harry Allison; Brackmann, Warren A.; and Hollenton, Frank, to American Machine & Foundry Company. System for feeding lead to a cigar making machine. 3,542,036, 11-24-70, Cl. 131-33.

Hooper, Harry Allison; Brackmann, Warren Arthur; and Hollenton, Frank, to American Machine & Foundry Company. Cigar manufacture. 3,542,038, 11-24-70, Cl. 131-149.

Hooper, Irving R.: *See—*
Cron, Martin John; Ragan, Elizabeth Almira; and Hooper, Irving R.,3,547,903.
Keil, John Gerard; and Hooper, Irving R.,3,494,914.

Hooper, Norbert: *See—*
Whittaker, Harold; and Hooper, Norbert,3,491,528.

Hooper, Paige, B. Spectropolarimeter. 3,545,865, 12-8-70, Cl. 356-96.

Hooper, Paige B., to Cary Instruments, mesne. Self-balancing spectropolarimeter with a servo loop compensated for changes in Verdet constant. 3,510,224, 5-5-70, Cl. 356-97.

Hooper, Paige B.; Duffield, Jack J.; and Robinson, Alfred D., to Cary Instruments. Strain birefringence modulator and application. 3,495,912, 2-17-70, Cl. 356-114.

Hooper, Robert P.; and Arne, Vernon L., to Boeing Company, The. Foreign particle separator for an air moving member. 3,513,641, 5-26-70, Cl. 55-306.

Hooper, S. W., & Co., Ltd.: *See—*
Hooper, Sydney W. H., 3,508,651.

Hooper, Stephen D., to Indemar, Inc. Slide holder. 3,508,355, 4-28-70, Cl. 40-106.1

Hooper, Sydney W. H., to Hooper, S. W., & Co., Ltd. Method and apparatus for screening pulp. 3,508,651, 4-28-70, Cl. 210-65.

Hooper, Thomas G. Railroad crossing atructure. 3,517,882, 6-30-70, Cl. 238-8.

Hooper, Thomas N., to Texas Instruments, Incorporated. Water gas shift converter and fuel cell system therewith. 3,499,797, 3-10-70, Cl. 136-86.

Hooper, Thomas N.; and Truitt, James K., to Texas Instruments, Incorporated. Electrodes having electrochemically active secondary electrodes. 3,492,161, 1-27-70, Cl. 136-86.

Hooper, Tom A. Upholstery tool. 3,551,016, 12-29-70, Cl. 294-25.

Hoopes, William R. Involuntary hydraulic safety braking system. 3,488,096, 1-6-70, Cl. 303-9.

Hoornstra, Clayton W., to Dow Chemical Company, The. Etching machine for curved plates and method. 3,488,713, 1-6-70, Cl. 156-14.

Hoornstra, Clayton W., to Dow Chemical Company, The. Method for etching curved surfaces. 3,510,372, 5-5-70, Cl. 156-14.

Hoornstra, Clayton W.; Moore, Richard E.; and Hickerson, John D. Method and apparatus for etching curved surfaces. 3,549,438, 12-22-70, Cl. 156-14.

Hoover Ball and Bearing Company: *See—*
Bauers, Arthur A., 3,498,632.
Bielak, Frank A., 3,506,987.
Kann, Henry Robert, 3,534,517.
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Riddle, Neville L.; and Niewulis, Albin J., 3,497,200.
Rupert, Samuel J., 3,506,171.
Rupert, Samuel J.; and Ziegler, William E., 3,533,132.
Slominski, Walter V., 3,487,480.
Slominski, Walter V.; and Mandusky, Jack F., 3,539,171.
Slominski, Walter V., 3,550,926.

Hoover, Charles T.; and Stedfeld, Rowland L., to General Motors Corporation. Leak visual warning and detection device. 3,502,436, 3-24-70, Cl. 23-253.

Hoover Company, The: *See—*
Berger, Christian D., 3,518,712.
Carabet, George F.; and Segesman, Louis E., 3,520,012.
Kurlinski, Dale T.; and Carabet, George F., 3,487,555.
Pinder, James M.; and Humphrey, Warren A., 3,498,316.
Piper, Glenn T., 3,499,237.
Ripple, Melvin H., 3,542,178.
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Hoover, Dillon B., to Westinghouse Electric Corporation. Fuse for brushless exciter. 3,496,510, 2-17-70, Cl. 337-159.

Hoover, Donald P.: *See—*
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Hoover, Dorothy H., to Frandee Corporation. Diaper changer bag. 3,489,194, 1-13-70, Cl. 150-1.

Hoover, Edwin L., to P & H Electronics. Electric retrieval system. 3,508,001, 4-21-70, Cl. 179-1.

Hoover, Herbert, III, to Sierracin Corporation, The. Control of fluids exhibiting an optical density change upon exposure to light. 3,492,062, 1-27-70, Cl. 350-160.

Hoover, James E., to GAF Corporation. Film winding and staking method. 3,518,746, 7-7-70, Cl. 29-430.

Hoover, James F.: *See—*
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Hoover, Jimmie N. Flow no-flow device. 3,551,071, 12-29-70, Cl. 417-43.

Hoover, Jimmie N. Flow, no-flow device. 3,551,620, 12-29-70, Cl. 200-83.

Hoover, John R. E., to Smith Kline & French Laboratories. Aminotricyclononanes and the salts thereof. 3,496,228, 2-17-70, Cl. 260-563.

Hoover, John R. E.; and Stedman, Robert John, to Smith Kline & French Laboratories. Caged aminomethylhexacyclodocanes. 3,536,761, 10-27-70, Cl. 260-563.

Hoover, John R. E.: *See—*
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Hoover, Joseph R., to Hughes Aircraft Company. Amplitude limiter with phase control. 3,548,215, 12-15-70, Cl. 307-237.

Hoover, Maurice W. Continuous vacuum impregnator. 3,520,279, 7-14-70, Cl. 118-50.

Hoover, Maurice W. Continuous juice extractor. 3,550,526, 12-29-70, Cl. 100-37.

Hoover, Merwin Frederick: *See—*
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Hoover, Merwin Frederick, to Calgon Corporation. Bactericidal polymers. 3,539,684, 11-10-70, Cl. 424-78.

Hoover, Merwin Frederick; and Carothers, Robert O., to Calgon Corporation, mesne. Electroconductive flock. 3,490,938, 1-20-70, Cl. 117-100.

Hoover, Robert L., to Ford Motor Company. Torque transfer gear case with a disengageable power take-off. 3,548,667, 12-22-70, Cl. 74-15.86

Hoover, William R. Spring-loaded wheel spinning apparatus. 3,525,489, 8-25-7, Cl. 244-103.

Hope, George R., Jr.: *See—*
Belt, John Edward; Hittel, Lorenz A.; Hope, George R., Jr.; Porcelli, Ernest J.; and Rakoczi, Laszlo L.,3,541,517.

Hope-Gill, Charles David. Jet propulsion plant. 3,512,717, 5-19-70, Cl. 239-265.37

Hope-Gill, Charles David. Gas turbine power plant. 3,531,934, 10-6-70, Cl. 60-39.04

Hope, Henry F.; and Hope, Stephen F. X-ray film processing machine. 3,532,048, 10-6-70, Cl. 95-94.

Hope, James, to International Nickel Company, Inc., The. Purification of hydrogen-containing gases. 3,494,100, 2-10-70, Cl. 55-16.

Hope Kabushiki Kaisha, The: *See—*
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Hope, Stephen F.: *See—*
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Hopf, Hans, to Staylastic-Smith, Inc. Control device for movable thread guide. 3,500,872, 3-17-70, Cl. 139-55.

Hopf, Henry C.: *See—*
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Hopfeld, Fred P., to Grand Specialties Company. Hoist and control mechanism for a hopper. 3,499,564, 3-10-70, Cl. 214-627.

Hopfeld, Henry. Method for making a reinforced structural member. 3,487,518, 1-6-70, Cl. 29-155.

Hopfner, Bernd: *See—*
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Hopgood, Robert B.; Green, Ivar; and Knowles, David W., Jr., to Nicholson File Company. Plastic spool and method of making same. 3,501,110, 3-17-70, Cl. 242-118.7

Hopkins, Charles L., to Xerox Corporation. High voltage compensated transistorized switching apparatus. 3,496,385, 2-17-70, Cl. 307-254.

Hopkins, David John; White, Carol Henry; and Eggar, John Wooldridge, to International Nickel Company, Inc., The. Alloy for service in petrochemical and hydrocarbon processing. 3,493,366, 2-3-70, Cl. 75-122.

Hopkins, Edward P., to General Electric Company. Combination fuel nozzle and spark plug for a gas turbine. 3,548,592, 12-22-70, Cl. 60-39.82

Hopkins, Evan L.; and Irwin, Lee K., to Hopkins Manufacturing Corporation. Lamp beam aiming system and methods of construction and use therefor. 3,532,433, 10-6-70, Cl. 356-121.

Hopkins, Evan L.; and Irwin, Lee K., to Hopkins Manufacturing Corporation. System of alignment particularly suitable for use in automotive applications. 3,533,699, 10-13-70, Cl. 356-121.

Hopkins, George H., Jr.: *See—*
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Hopkins, Gordon Stanley Anderson: *See—*
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Hopkins, James E.: *See—*
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Hopkins, John G., to Stevens, J. P., & Co., Inc. Method for producing a latent texturized yarn. 3,498,044, 3-3-70, Cl. 57-157.

Hopkins, Kenneth William: *See—*
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Hopkins, Leslie Arthur, to Hovercraft Development Limited. Means for bounding a space for receiving pressurised gas. 3,540,542, 11-17-70, Cl. 180-127.

Hopkins, Leslie O.; Stephenson, Harry; and Maciver, Donald R., to Pyrethrum Board of Kenya, The. Production of acetals and mercaptals. 3,509,182, 4-28-70, Cl. 260-340.5

Hopkins Manufacturing Corporation: *See—*
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Hopkins, Evan L.; and Irwin, Lee K., 3,533,699.
Irwin, Lee K., 3,515,483.

Hopkins, Maxwell M.; and Miller, Arthur, to RCA Corporation. Method for poling bismuth titanate. 3,531,779, 9-29-70, Cl. 340-173.2

Hopkins, Reginald Thomas, to General Motors Corporation. Rotary-drum machines. 3,539,011, 11-10-70, Cl. 210-146.

Hopkins, Richard G.: *See—*
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Hopkins, Thomas R.: *See—*
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Hopkins, Wayne F., to Phillips Petroleum Company. Polymerization method and apparatus. 3,506,628, 4-14-70, Cl. 260-83.7

Hopkins, William B., to McKee Button Company, Inc. Apparatus for selecting and positioning buttons for sewing on a sewing machine. 3,494,311, 2-10-70, Cl. 112-113.

Hopkins, William B. Device for the repair of punctures in tubeless tires. 3,542,614, 11-24-70, Cl. 156-97.

Hopkins, William C. N. Vehicle attachment for motorcycles. 3,498,633, 3-3-70, Cl. 280-204.

Hopkins, William C. N. Power lift. 3,528,304, 9-15-70, Cl. 74-89.21

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Youmans, Arthur H.; and Hopkinson, Eric C.,3,532,885.
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Hopler, Robert B., Jr., to Hercules Incorporated. Bulk delivery of crosslinkable aqueous slurry explosive with crosslinking agent in a separate feed. 3,523,048, 8-4-70, Cl. 149-109.

Hopp, Gertrude, to Olympia Werke A.G. Line finder with cutouts representing symbols. 3,502,189, 3-24-70, Cl. 197-113.

Hopp, Phillip; and Lutz, Harry H., to Hopp Press Incorporated, The. Shelf display sign. 3,537,196, 11-3-70, Cl. 40-11.

Hopp Press Incorporated, The: *See—*
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Hoppe, Egon; and Cretescu, Alex Armand, to Ministerul Industriei Constructiilor de Masini. Protective device for three-phase induction- motors. 3,505,582, 4-7-70, Cl. 318-475.

Hoppe, Horst. Deckle edge cutting knife. 3,509,790, 5-5-70, Cl. 83-697.

Hoppe, Klaus; and Krueger, Gerhard, to VEB Germania Chemicalagen- und Apparatebau. High capacity mass transfer plate for columns. 3,550,916, 12-29-70, Cl. 261-114.

Hoppe, Peter; Essig, Karl-August; Dornheim, Goetz-Gotmar; Bendler, Erich; Weber, Karl-Arnold; and Von Langenthal, Wolfram, to Farbenfabriken Bayer Aktiengesellschaft. Fiber-reinforced foam plastic shaped articles. 3,546,060, 12-8-70, Cl. 161-156.

Hoppe, Walter. Digital control of the positioning of mechanisms, especially of movable members of X-ray diffractometers. 3,513,371, 5-19-70, Cl. 318-18.

Hoppe, William C.: *See—*
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Hoppen, Johannes, to U.S. Philips Corporation, mesne. Fluid treatment apparatus. 3,517,816, 6-30-70, Cl. 210-266.

Hopper, Bernard; and Trigg, Robert Victor, to Norton Villiers Limited. Chain driven vehicles. 3,542,146, 11-24-70, Cl. 180-33.

Hopper, Claude, Jr.; and Jolly, Shelby A., to General Electric Company. Ceramic tube with integrated resonator structure. 3,527,981, 9-8-70, Cl. 315-39.

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Hopper, James H., to United Aircraft Corporation. Aspirator and control therefor. 3,516,405, 6-23-70, Cl. 128-276.

Hopper, Mitchell C. Table top viewer. 3,535,032, 10-20-70, Cl. 353-98.

Hopping, Alvin S. Frequency stabilized glow-discharge tube oscillator and electrical musical instrument employing the same. 3,495,020, 2-10-70, Cl. 84-1.01

Hopping, Alvin S. Simulated stringed electronic musical instrument having gradual switch for attack, decay, and volume control. 3,524,375, 8-18-70, Cl. 84-1.13

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Hopps, John H., Jr., to Nashua Corporation. Electrosensitive recording material. 3,516,911, 6-23-70, Cl. 204-2.

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Horai Tekko Sho Co., Ltd.: *See—*
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Horak, Heinz, to Apparatefabrik A.G. Method and apparatus for actuating displaceable elements of a machine utilizing the Jacquard principle of operation such as the lifting wires of Jacquard machines or the punching needles of Jacquard card cutters. 3,529,635, 9-22-70, Cl. 139-59.

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Horak, Josef; Paulus, Jiri; Volek, Frantisek; Figalla, Zdenek; Hanko, Josef; Hadac, Oldrich; and Opravil, Alois, to Statni Vyzkumny Ustav Kozedelny. Flow line for the production of cemented footwear. 3,538,526, 11-10-70, Cl. 12-1.

Horak, Wendel C.; and Riddle, Eugene J., to Murdock Manufacturing and Supply Company, The. Frostproof hydrant. 3,494,373, 2-10-70, Cl. 137-217.

Horan, John J. Simplified lamp and structure coaction system. 3,523,274, 8-4-70, Cl. 339-176.

Horan, John J. Voltage generation and ignition timing systems. 3,524,084, 8-11-70, Cl. 310-8.1

Horan, Karl. Torsion balance. 3,508,624, 4-28-70, Cl. 177-178.

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Hore, Donald L., to Rotork Engineering Company Limited. Valve actuating mechanisms. 3,551,749, 12-29-70, Cl. 317-48.

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Horecky, Stanley V., to Molex Products Company. Electrical slide switch with prewired terminals. 3,501,599, 3-17-70, Cl. 200-16.

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Horgan, William J., Jr., to Blumcraft of Pittsburgh. Handrail fitting. 3,526,390, 9-1-70, Cl. 256-65.

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Hori, Haruo; Taguchi, Masahiko; Hoshino, Shoichiro; and Yumiki, Keiichi, to Keuffel & Esser Company. Light sensitive imaging material containing hydrazones. 3,547,646, 12-15-70, Cl. 96-90.

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Horie, Tatuo; and Fujiwara, Yasuo, to Nippon Oil Company, Limited. Process for producing high-purity isobutylene. 3,527,829, 9-8-70, Cl. 260-677.

Horie, Yukio, to Dai Nihon Bungu Kabushiki Kaisha, also trading as the Japan Stationery Co., Ltd. Writing instrument. 3,510,227, 5-5-70, Cl. 401-199.

Horie, Yukio, to Dai Nihon Bungu Kabushiki Kaisha, also t/a Japan Stationery Co., Ltd., The. Ball point pen for water soluble ink. 3,533,708, 10-13-70, Cl. 401-209.

Horigome, Toshinori: *See—*
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Horikoshi, Ichiro. Locking device for a safe door. 3,489,450, 1-13-70, Cl. 292-335.

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Horn, Anders, to State Highway Department of the State of North Dakota. Flexible rectangular panel mountings for tractor- supported rotay mower. 3,522,694, 8-4-70, Cl. 56-25.4

Horn, Anton J., to Hoffman-La Roche, Inc., mesne. Monitoring system for heart rate, respiration rate and blood pressure. 3,536,062, 10-27-70, Cl. 128-2.05

Horn, Anton J.; and Kuni, Christopher C., to Hoffmann-La Roche Inc., mesne. Respiration rate meter. 3,532,087, 10-6-70, Cl. 128-2.1

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Horrocks, Raymond G., to Scott & Fetzer Company, The. Tool for removing material from around the electrical conductor of a cable. 3,548,691, 12-22-70, Cl. 81-9.5

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House, Charles J., to Calumet & Hecla Corporation, mesne. Form drawing of fluted tubing. 3,487,673, 1-6-70, Cl. 72-282.

House, John E., Jr.: *See—*
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House, Lloyd D. Toy gun for discharging elastic bands. 3,515,387, 6-2-70, Cl. 273-101.

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House, Roy F., to National Lead Company. Organophilic clay greases. 3,537,994, 11-3-70, Cl. 252-13.

House, William M., to Machine Products Corporation. Rotary table. 3,490,151, 1-20-70, Cl. 33-174.

House, William T.: *See—*
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Houseman, John, to Hercules Incorporated, mesne. Solids arc reactor method. 3,533,756, 10-13-70, Cl. 23-294.

Houser, Clarence G.; and Hoskins, Jack E., to Phillips Petroleum Company. Temperature control system. 3,544,540, 12-1-70, Cl. 260-93.7

Houser, James A., to Standco Industries, Inc. Method and apparatus for handling, preparing and feeding rods for a thread forming machine. 3,514,799, 6-2-70, Cl. 10-162.

Houser, Richard W.; and Woodlock, David F., to Boeing Company, The. Aircraft steerable main landing gear. 3,516,625, 6-23-70, Cl. 244-50.

Houser, Robert W., to GAF Corporation. Film examining apparatus for detecting flaws in a continuously moving film web in which a delay circuit is used to permit deriving both the blanking signal and the inspection signal from a single light source. 3,515,488, 6-2-70, Cl. 356-200.

Houser, Roy W. Vented cigarette holder. 3,519,000, 7-7-70, Cl. 131-198.

Houss, Max. Stamp driver mechanism. 3,487,987, 1-6-70, Cl. 226-79.

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Houston, Lewis C., to St. Joe Paper Company. Container with outfolded flanges. 3,536,249, 10-27-70, Cl. 229-34.
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Houston, Robert W.; Haviland, Gaylord B.; Wykoff, James L.; and Center, Donald R., to Big Four Automotive Equipment Corporation. Tire changer having friction lock. 3,511,296, 5-12-70, Cl. 157-1.24
Houston, Russell F., to Mosler Safe Company, The. Metal polishing apparatus. 3,545,138, 12-8-70, Cl. 51-59.
Hout, Norman C. Foam device for fog nozzles. 3,547,200, 12-15-70, Cl. 169-15.
Houtman, Jack A., to General Electric Company. Stator assembly for single phase induction motor. 3,515,919, 6-2-70, Cl. 310-166.
Houtman, Jack A., to General Electric Company. Method of manufacturing a stator assembly for an induction motor. 3,528,171, 9-15-70, Cl. 29-596.
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Houwing, Jan, to Sulzer Brothers Limited. Method and apparatus for weaving. 3,540,492, 11-17-70, Cl. 139-116.
Houyvet, Alain; and Noe, Pierre, to Commissariat a l'Energie Atomique. Ultrahigh-vacuum enclosure. 3,512,369, 5-19-70, Cl. 62-55.5
Hovance, Hubert T., to Auto Arc-Weld Mfg. Co. Oscillator slide assembly and control circuit therefor. 3,509,436, 4-28-70, Cl. 318-127.
Hovance, Hubert T., to National-Standard Company, mesne. Motor control system. 3,532,951, 10-6-70, Cl. 318-331.
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Howald, Arthur M., to Soo Valley Company. Fly fishing line with water-repellent preservative dressing. 3,523,034, 8-4-70, Cl. 117-76.
Howald, Werner E., to General Electric Company. Composite turbomachinery rotors. 3,519,368, 7-7-70, Cl. 416-216.
Howald, Werner E., to General Electric Company. Cooling of structural members particularly for gas turbine engines. 3,527,543, 9-8-70, Cl. 416-90.
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Howard, Alan Charles Richard, to Rotax Limited. Rectilinear motion bearings. 3,547,502, 12-15-70, Cl. 308-6.
Howard, Alan James. Process for preparing an aerated shortening composition. 3,549,387, 12-22-70, Cl. 99-122.
Howard, Allen C., to Phillips Petroleum Company. Carbon black feeding to a pelletizer using gas pulses in the flow control zone. 3,493,350, 2-3-70, Cl. 23-314.
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Howard, Billy G., 1/2 to Ashworth, Clyde R. Waste compressor including ejector chute. 3,538,844, 11-10-70, Cl. 100-98.
Howard, Carl G. Furnace emergency control. 3,489,346, 1-13-70, Cl. 236-9.
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Howard, Dean D., to United States of America, Navy. Microwave system for determining water content in fuel oil. 3,498,112, 3-3-70, Cl. 73-61.1
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Howard, Donald W.; and Larsen, Lester J., to Bendix Corporation, The. Means responsive to road surface conditions for selecting adaptive braking system control channel controlling wheel. 3,535,004, 10-20-70, Cl. 303-21.
Howard, Donald W.; and Schafer, Thomas C., to Bendix Corporation, The. Adaptive braking system false trigger hold-off circuit. 3,544,172, 12-1-70, Cl. 303-21.
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Howard, Edward Charles; and Parkyn, Graham Townsend, to Watson, W., & Sons Limited. Microscope selective illuminator. 3,493,285, 2-3-70, Cl. 350-87.
Howard, Edward George, Jr., to Du Pont de Nemours, E. I., and Company. Compositions of polyfluoroketone/epoxide copolymers and an organic additive. 3,534,124, 10-13-70, Cl. 260-901.
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Howard, Fred, to Howard Displays, Inc. Fabric sample display. 3,514,875, 6-2-70, Cl. 35-55.
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Howard, Fred, to Howard Displays, Inc. Portable display devices. 3,530,984, 9-29-70, Cl. 206-82.
Howard, Fred, to Howard Displays, Inc. Display rack for carpet samples or the like. 3,534,863, 10-20-70, Cl. 211-47.
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Howard, John Arthur, to Rotary Hoes Limited. Method of, and means for reducing the tractive effort on an agricultural tool. 3,514,960, 6-2-70, Cl. 61-72.6
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Howard, Orville L., to M-C-T Enterprises, Inc. Method of handling produce or other products and apparatus for performing the method. 3,487,605, 1-6-70, Cl. 53-35.
Howard, Reginald C. Method of locating and mounting die set components. 3,540,314, 11-17-70, Cl. 76-107.
Howard, Robert; and Wang, An, to Centronics Data Computer Corporation, mesne. Cash flow computer. 3,516,068, 6-2-70, Cl. 340-172.5
Howard, Sol; and Schaaf, Robert, to Mil-An Mfg. Corporation. Vacuum cleaner cloth bag. 3,535,855, 10-27-70, Cl. 55-368.
Howard, Thomas P., to Sybron Corporation, mesne. Vehicle with external loading and unloading means. 3,521,778, 7-28-70, Cl. 214-624.
Howard, Warren R.; and Hood, Henry A., to Wall Industries, Inc., mesne. Cordage product. 3,496,716, 2-24-70, Cl. 57-155.
Howard, Wayne H.; and Young, Donald R., to United States of America, National Aeronautics and Space Administration. Skeletal stressing method and apparatus. 3,550,585, 12-29-70, Cl. 128-24.
Howard, William E., to Materials Handling Systems Inc. Device for handling drums in horizontal condition. 3,510,019, 5-5-70, Cl. 214-620.
Howard, William E., to Materials Handling Systems, Inc. Ninety degree turning attachment for forklift truck. 3,512,670, 5-19-70, Cl. 214-620.
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Howe, James A., to Sperry Rand Corporation. Temperature sensing current source. 3,488,529, 1-6-70, Cl. 307-310.
Howe, Joseph H.; and Morris, Leo R., to Dow Chemical Company, The. (1-Bromo-1(bromomethyl)-3,3,3-trichloropropyl) benzene compounds. 3,509,222, 4-28-70, Cl. 260-651.
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Howell, Alleyne C., Jr. Electrical collector for conductor rails. 3,525,823, 8-25-70, Cl. 191-59.1
Howell, Antony Charles; and Walker, Christopher Burcham, to International Standard Electric Corporation. Circuit to control inverter switching for reduced harmonics. 3,523,236, 8-4-70, Cl. 321-9.
Howell, Charles Frederick; Ramirez, Paul; and Hardy, Robert Allis, Jr., to American Cyanamid Company. Novel 11-(4-piperidyl) dibenz (b,f) (1,4) oxazepines and thiazepines. 3,501,483, 3-17-70, Cl. 260-293.4
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Howell, E. Keith; and Gutzwiller, Frank W., to General Electric Company. Power control circuits including a bidirectional current conducting semiconductors. 3,535,615, 10-20-70, Cl. 323-22.
Howell, Edmund O., to Sperry Rand Corporation. Mounting for supporting two hydraulic pumps in axial alignment with a driving shaft. 3,523,491, 8-11-70, Cl. 92-12.2

Howell, Edmund O.; Adams, Charles B.; and Schwalm, Bruce D., to Sperry Rand Corporation. Neutral indicating and ignition switching means in a control mechanism for a dual hydraulic transmission. 3,526,153, 9-1-70, Cl. 74-491.

Howell, Edward K. General Electric Company Synchronous switching circuit. 3,515,902, 6-2-70, Cl. 307-252.

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Howell, Harlan A. Electric motors and generators. 3,502,923, 3-24-70, Cl. 310-187.

Howell, Harry D., Jr., to Hanford Foundry Company. Insert bearings for kiln chain brackets. 3,526,394, 9-1-70, Cl. 263-33.

Howell, Harry D., Jr.; and Gillman, William J. Two-part shackle pin. 3,494,124, 2-10-70, Cl. 59-86.

Howell, Harry D., Jr.; and Gillman, William J., to Hanford Foundry Company, mesne. Removable clinker cooler grate plates and support frame therefor. 3,543,413, 12-1-70, Cl. 34-164.

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Howell, John J. Electrical outlet box locator. 3,522,658, 8-4-70, Cl. 33-180.

Howell, Robert B., to Unique Zipper Distributing Co. Zipper foot attachment for sewing machines. 3,511,197, 5-12-70, Cl. 112-235.

Howell, Robert B. Zipper foot adapter shoes. 3,511,199, 5-12-70, Cl. 112-235.

Howell, Robert B. Presser foot assemblies. 3,511,200, 5-12-70, Cl. 112-235.

Howell, Robert B. Presser foot mounting. 3,511,201, 5-12-70, Cl. 112-240.

Howell, Robert B. Slider for a concealed slide fastener. 3,516,127, 6-23-70, Cl. 24-205.14

Howell, Robert B. Slide fastener employing skin closure appliances and techniques. 3,516,409, 6-23-70, Cl. 128-335.

Howell, Robert E. Golf practice device. 3,535,936, 10-27-70, Cl. 73-379.

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Howells, David Alan, to Sperry Rand Limited. Mechanically crosscoupled dual channel actuator system. 3,509,435, 4-28-70, Cl. 318-18.

Howells, George Aneurin, to International Standard Electric Corporation. Magnetic storage devices. 3,510,855, 5-5-70, Cl. 340-174.

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Howells, Paul W., to General Electric Company. Radar system. 3,508,262, 4-21-70, Cl. 343-17.1

Howera, Nickolas. Housetrailer construction. 3,528,207, 9-15-70, Cl. 52-67.

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Howes, Leslie D.; Robins, Jack B.; and Sankey, Guy A., Jr., to Garrett Corporation, The. Combustion chamber flame tube construction. 3,496,722, 2-24-70, Cl. 60-39.65

Howes, Maurice A. H.; and Schwartzbart, Harry, to IIT Research Institute. Method and apparatus for producing fibers from molten metals or ceramics. 3,501,560, 3-17-70, Cl. 264-85.

Howey, Stanley G., to General Motors Corporation. Universal joint cage. 3,541,809, 11-24-70, Cl. 64-21.

Howie, H Robert, Jr., to Dynatech Corporation. Automatic arc welder. 3,546,424, 12-8-70, Cl. 219-131.

Howker Siddeley Dynamics Limited: *See—*
Thompson, Lionel Raymond Frank; and Bullock, Leslie, 3,546,447.

Howland, Benjamin T.: *See—*
Howard, Landon H.; and Howland, Benjamin T.,3,507,580.

Howland, George R., to Bendix Corporation, The. Fluidic fuel injection system for combustion engine. 3,548,795, 12-22-70, Cl. 123-119.

Howlett, Donald E.: *See—*
McKown, Daniel C.; Howlett, Donald E.; and DiTommaso, Anthony,3,516,743.

Howlett, Edward John. Apparatus for dispensing towelling. 3,506,320, 4-14-70, Cl. 312-38.

Howlett, George H.; and Howlett, James W., to Howlett Machine Works. Tendon anchorage. 3,520,032, 7-14-70, Cl. 24-122.6

Howlett, George H.: *See—*
Howlett, James W.; and Howlett, George H.,3,522,682.

Howlett, James W.: *See—*
Howlett, George H.; and Howlett, James W.,3,520,032.

Howlett, James W., to Howlett Machine Works. Concrete prestressing apparatus (split nut). 3,504,938, 4-7-70, Cl. 287-114.

Howlett, James W., to Howlett Machine Works. Concrete prestressing method. 3,518,748, 7-7-70, Cl. 29-452.

Howlett, James W.; and Howlett, George H., to Howlett Machine Works. Multiple tendon anchorage. 3,522,682, 8-4-70, Cl. 52-223.

Howlett, Joe R.; and Penny, Guy D. Pulling friction type exercising device. 3,519,269, 7-7-70, Cl. 272-80.

Howlett Machine Works: *See—*
Howlett, George H.; and Howlett, James W., 3,520,032.
Howlett, James W., 3,504,938.
Howlett, James W., 3,518,748.
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Howlett, Thomas W.; Verbeek, Clarence; and Shupp, Laurence N., to Union Tank Car Company, mesne. Tandem arc automatic welding. 3,497,667, 2-24-70, Cl. 219-126.

Howman, Eric James: *See—*
Turner, Leonard; Bradshaw, Christopher Patrick Cadman; and Howman, Eric James,3,526,676.

Howmet Corporation: *See—*
Benson, Charles L.; and Lenahan, William N., 3,519,057.
Soller, Henry W., 3,543,000.
Stier, Henry W., 3,546,758.
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Howorth, Frederick H., to Howorth, James, & Company Limited. Humidifying apparatus for yarns. 3,548,511, 12-22-70, Cl. 34-22.

Howorth, James, & Company Limited: *See—*
Howorth, Frederick H., 3,548,511.

Howse, Paul T., Jr.: *See—*
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Gerrish, Allan M.; and Howson, Robert D.,3,492,578.

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Denner, James R., 3,496,368.
Denner, James R., 3,506,350.
Denner, James R., 3,528,737.
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Hoxsie, Frank E., to Lowrance Electronics Mfg., Corporation. Depth sounder. 3,548,370, 12-15-70, Cl. 340-3.

Hoy, Charles D., to Task Corporation. Mandrel device for assembling and securing laminations. 3,513,527, 5-26-70, Cl. 29-205.

Hoy, Ralph C.: *See—*
Appleton, David B.; and Hoy, Ralph C.,3,506,945.

Hoyaux, Marcel: *See—*
de Schwiegne, Andre; and Hoyaux, Marcel,3,505,806.

Hoye, Peter Albert, to Albright & Wilson (Mfg.) Limited. Organo (chloro) tin mercaptides. 3,542,825, 11-24-70, Cl. 260-429.7

Hoyer, Ernst: *See—*
Gunther, Dieter; Hoyer, Ernst; Schmidt, Heinz; and Vollmann, Hansjorg,3,544,548.
Lindner, Helmut; Hoyer, Ernst; and Schmidt, Heinz,3,549,613.

Hoyer, Georg-Alexander; and Pieroh, Ernst Albrecht, to Schering AG. Fungicidal and fungistatic N-(dialkylaminoalkyl)- carbamic acid and thiocarbamic acid esters. 3,513,241, 5-19-70, Cl. 424-300.

Hoyer, Ludolf J.; and Caldwell, John R., Jr. Therapeutic chair. 3,548,810, 12-22-70, Cl. 128-25.

Hoyer, Wilmer A.: *See—*
Buck, Henry M.; and Hoyer, Wilmer A.,3,492,481.

Hoyl, Alfred G.: *See—*
Hoel, Alfred G., Jr., now by change of name; and Hoyl, Alfred G.,3,538,852.

Hoyland, Alyson Skipp. Toy cooking apparatus. 3,548,146, 12-15-70, Cl. 219-200.

Hoyle, Clifford; Stevens, Edgar Gardner; and Gibb, John Maxwell, to Johns-Manville Corporation. Thermosetting resin coated asbestos yarn for use in dyer's felts. 3,519,475, 7-7-70, Cl. 117-126.

Hoyle, Geoffrey; and Barrs, Edward Martin, to British Iron and Steel Research Association, The. Casting moulds with corner plate coolant flow passages. 3,520,353, 7-14-70, Cl. 164-348.

Hoyle, William R., to Schlumberger Technology Corporation. Methods and apparatus for interpreting shaly- sand earth formations. 3,500,683, 3-17-70, Cl. 73-152.

Hoyne, Earl K.; and LeGrand, Gary F., to Minnesota Mining and Manufacturing Company. Document photographing machine. 3,539,257, 11-10-70, Cl. 355-65.

Hoyrup, Sigurd J., to Kliklok Corporation. Device for forming and heat bonding gusset corners of a folding box blank bearing a thermoplastic coating. 3,511,140, 5-12-70, Cl. 93-51.

Hoyt Corporation: *See—*
Miller, Conrad H., 3,505,976.

Hoyt, Howard Eugene; and Pfluger, Helmuth Louis, to Borden, Inc. Separator for alkaline batteries and method of making same. 3,498,840, 3-3-70, Cl. 136-6.

Hoyt, Howard Eugene; and Pfluger, Helmuth Louis, to Borden, Inc. Process of treating cellulosic membrane and alkaline with membrane separator. 3,498,841, 3-3-70, Cl. 136-6.

Hoyt, Howard Eugene; and Pfluger, Helmuth Louis, to Borden, Inc. Alkaline electrochemical cells and method of making. 3,506,496, 4-14-70, Cl. 136-148.

Hoyt, Howard Eugene: *See—*
Pfluger, Helmuth Louis; and Hoyt, Howard Eugene,3,519,483.
Pfluger, Helmuth Louis; and Hoyt, Howard Eugene,3,519,484.

Hoyt, John M.; and Koch, Karl, to National Distillers and Chemical Corporation. Novel resinous polyquinoxaline polymers and process for preparing the same. 3,509,097, 4-28-70, Cl. 260-65.

Hoz-Pin Corporation: *See—*
Davison, Patrick T., 3,529,328.

Hozumi, Keichiro. Apparatus for quantitative analysis of a particular constituent of a sample. 3,549,262, 12-22-70, Cl. 356-181.

Hrach, Frank J.; and Papell, Solomon S., to United States of America, National Aeronautics and Space Administration. Capacitor and method of making same. 3,535,602, 10-20-70, Cl. 317-258.

Hrach, Josef; and Zeschmar, Winfried, to Sandoz Ltd. Cross-linked co-polyesters and process of making them. 3,525,715, 8-25-70, Cl. 260-47.

HRB-Singer, Inc.: *See—*
Cannon, John B., Jr., 3,510,191.
Cannon, John B., Jr., 3,549,805.
Coklin, Barry G., 3,529,184.
Coughenour, Donald J.; and Burnett, Wayne A., 3,497,834.
Golla, Eugene Fred, 3,510,590.
Headington, Edward E.; and Marks, Richard L., 3,495,783.
Mayefskie, Gerald F.; and Richardson, Emory, 3,543,164.
Norris, Russell Snyder, Jr., 3,500,399.

Hrdina, Jiri, to Ceskoslovenska akademie ved. Hydrodynamic cell. 3,506,366, 4-14-70, Cl. 356-246.

Hrdina, Jiri, to Ceskoslovenska akademie ved. Photometric cell for optical measurement of a liquid sectionalized into sample segments by intervening separating pistons of a gas. 3,508,837, 4-28-70, Cl. 356-246.

Hrdina, Jiri, to Ceskoslovenska akademie ved. Apparatus for carrying out chromatographic analyses of amino acids, their mixtures and similar materials. 3,508,880, 4-28-70, Cl. 23-253.

Hrdina, Jiri, to Ceskoslovenska akademie ved. Closure of columns, particularly of chromatographic columns. 3,511,377, 5-12-70, Cl. 210-198.

Hrdina, Jiri, to Ceskoslovenska akademie ved. Method for measuring the extinction of a continuous or discontinuous flow of a liquid. 3,512,398, 5-19-70, Cl. 73-61.1

Hrdina, Jiri. Device for programmed drawing off of gas bubbles from a measuring cell separator and the liquid from the extinction cell space. 3,514,210, 5-26-70, Cl. 356-246.

Hrdina, Jiri, to Ceskoslovenska akademie ved. Measuring cell with gas and particle collection. 3,516,752, 6-23-70, Cl. 356-246.

Hrdina, Jiri, to Ceskoslovenska akademie ved. Inclined flow cell including a sink for solid particles. 3,518,015, 6-30-70, Cl. 356-246.

Hrdina, Jiri, to Ceskoslovenska akademie ved. Apparatus for analyzing mixtures of substances in one or a plurality of chromatographic columns. 3,518,874, 7-7-70, Cl. 73-61.1

Hrdina, Jiri, to Ceskoslovenska akademie ved. Through-flow measuring cell for photometers. 3,520,517, 7-14-70, Cl. 356-246.

Hrdina, Jiri, to Ceskoslovenska akademie ved. Device for supplying segmentized samples of a fluidal medium to an analysis apparatus. 3,524,366, 8-18-70, Cl. 137-1.

Hrdina, Jiri, to Ceskoslovenska akademie ved. Measuring cell for through-flow photometers. 3,524,709, 8-18-70, Cl. 356-246.

Hrdina, Jiri, to Ceskoslovenska akademie ved. Apparatus for automatic sample liquid loading for chromatography columns. 3,530,721, 9-29-70, Cl. 73-423.

Hrdina, Jiri, to Ceskoslovenska akademie ved. Device and process for the measurement of fluid flow, especially pulsed liquid flow. 3,535,926, 10-27-70, Cl. 73-194.

Hrdina, Jiri, to Ceskoslovenska akademie ved. Method of examining mixtures of amino acids by chromatography. 3,537,821, 11-3-70, Cl. 23-230.

Hrdina, Jiri, to Ceskoslovenska akademie ved. Photometric device with photocell compensating means. 3,538,337, 11-3-70, Cl. 250-218.

Hrdina, Jiri, to Ceskoslovenska akademie ved. Method of and an apparatus for chromatographically separating amino acids mixtures. 3,551,107, 12-29-70, Cl. 23-230.

Hrdina, Jiri, to Ceskoslovenska akademie ved. Apparatus for manostating evaluation devices. 3,551,110, 12-29-70, Cl. 23-253.

Hrdlicka, Jiri: *See—*
Bezouska, Vlastimil; Pivrnec, Jan; Hrdlicka, Jiri; Krasa, Evzen; and Smekal, Zdenek,3,518,507.

H. R. Electronics Company: *See—*
Shirley, John R., 3,508,636.
Shirley, John R., 3,521,733.

Hreschak, Bohdan O., to National Biscuit Company. Process for preparing a honey-graham flavored cereal. 3,505,078, 4-7-70, Cl. 99-83.

Hristova, Snejanka Vladimirova: *See—*
Angelov, Stefan Hristov; Hristova, Snejanka Vladimirova; and Srebev, Srebryu Yovtchev,3,548,180.

Hrivnyak, John B.: *See—*
Hrivnyak, John; and Hrivnyak, John B.,3,509,846.

Hrivnyak, John; and Hrivnyak, John B. Anchor. 3,509,846, 5-5-70, Cl. 114-208.

Hromatka, Otto; Knollmuller, Maximilian; and Binder, Dieter, to Smith Kline & French Laboratories. Substituted 1,3-dihydro-2-1-4-benzothiadiazepine 2,2-dioxides. 3,507,882, 4-21-70, Cl. 260-327.

Hromatka, Otto; Knollmuller, Maximilian; and Binder, Dieter, to Smith Kline & French Laboratories. Substituted 3,4-dihydro-1H-2,1,5- benzothiadiazocine-2,2-dioxides. 3,526,638, 9-1-70, Cl. 260-327.

Hronas, John J., to Calgon Corporation, mesne. Pressurized flow system. 3,488,154, 1-6-70, Cl. 23-230.

Hronik, Richard H.; Smith, Blanchard D.; and Wallen, James, Jr., to Melpar, Inc. Apparatus for high-speed measurement of track geometry. 3,500,186, 3-10-70, Cl. 324-61.

Hronik, Richard H.: *See—*
Wallen, James, Jr.; and Hronik, Richard H.,3,517,307.

Hruby, John O., Jr., to Rain Jet Corporation. Industrial liquid discharge nozzle and the like. 3,547,351, 12-15-70, Cl. 239-338.

Hruby, Joseph, to Addressograph-Multigraph Corporation. Gas developing apparatus. 3,524,397, 8-18-70, Cl. 95-94.

Hruby, Ronald J.: *See—*
Feinstein, Lester; and Hruby, Ronald J.,3,532,973.
Sander, Ronald C.; and Hruby, Ronald J.,3,549,799.

Hruby, Vaclav; and Dittrich, Miloslav, to Zavody V.I. Lenina Plzen, narodni podnik. Optical gauge. 3,533,701, 10-13-70, Cl. 356-167.

Hrusovsky, Joseph A., to American Electronic Laboratories, Inc. Airborne navigation converter. 3,550,127, 12-22-70, Cl. 343-106.

Hrustich, John, to International Business Machines Corporation. Test system for evaluating amplitude and response characteristics of logic circuits. 3,541,441, 11-17-70, Cl. 324-73.

Hrynik, Thomas F., to Ford Motor Company. Vehicle shoulder harness stowage means. 3,532,361, 10-6-70, Cl. 280-150.

Hsiao, Chao: *See—*
Brinkerhoff, Jack L.; Horton, Lawrence B.; and Hsiao, Chao,3,521,663.

Hsiao, James K., to Bell Telephone Laboratories, Incorporated. Balanced magnetic logic circuits. 3,508,071, 4-21-70, Cl. 307-88.

Hsieh, Henry L., to Phillips Petroleum Company. Polymer modification with a complex of ArN_2X and RMX. 3,506,638, 4-14-70, Cl. 260-94.7

Hsieh, Henry L.: *See—*
Short, James N.; and Hsieh, Henry L.,3,491,168.
Wofford, Clinton F.; Busler, William R.; and Hsieh, Henry L.,3,546,134.

Hsieh, Peter K.; and Benima, David, to RCA Corporation. Random access memory with quiet digit-sense system. 3,530,445, 9-22-70, Cl. 340-174.

Hsieh, Peter K.; and Freeman, James L., Jr., to RCA Corporation. Two-element-per-bit random access memory with quiet digit-sense system. 3,522,593, 8-4-70, Cl. 340-174.

Hsieh, Peter K.; and Montgomery, Donald H., to RCA Corporation. Memory line selection matrix for application of read and write pulses. 3,500,359, 3-10-70, Cl. 340-174.

Hsieh, Peter: *See—*
Gange, Robert A.; and Hsieh, Peter,3,541,475.

Hsiung, Andrew Kou-Ying: *See—*
Ettlich, William F.; and Hsiung, Andrew Kou-Ying,3,545,619.
Rice, Archie H.; Slechta, Alfred F.; and Hsiung, Andrew K.,3,511,380.

Hsu, Henry, to Pullman Incorporated. Urea synthesis. 3,544,628, 12-1-70, Cl. 260-555.

Hsu, Yung Shing; and Pomeroy, Raymond V., to Omark Industries, Inc. Powder actuated tool. 3,514,025, 5-26-70, Cl. 227-10.

Hu, Kuang-Chi: *See—*
Andrews, Douglas R.; Atrubin, Allan J.; Baumgartner, Richard J.; Bond, Milton F.; and Hu, Kuang-Chi,3,517,387.

Hu, Michael J. C., to United States of America, Atomic Energy Commission. Binary radix converter. 3,535,500, 10-20-70, Cl. 235-155.

Hu, Paul Y.: *See—*
Fisher, Gene A.; Guzman, Adolfo M.; Harris, John P.; and Hu, Paul Y.,3,543,068.

Hu, Shih-en, to Esso Research and Engineering Company. Oil-soluble multifunctional detergent dispersant comprising an amide of a polyamine and an alkaryl keto acid. 3,526,661, 9-1-70, Cl. 260-558.

Hu, Shih-En, to Esso Research and Engineering Company. Organic halo phosphite ester reaction products and hydrocarbon oil compositions containing the same. 3,536,623, 10-27-70, Cl. 252-46.7

Hu, Shih-Ming, to International Business Machines Corporation. Temperature compensation for semiconductor devices. 3,491,325, 1-20-70, Cl. 338-22.

Hu, Shih-En: *See—*
Geyer, Jerome; and Hu, Shih-En,3,523,074.

Hu, Shin-En; and Geyer, Jerome, to Esso Research and Engineering Company. Novel oil treatment and lubricating oil filters for internal combustion engines. 3,489,676, 1-13-70, Cl. 208-179.

Hu, Yow-Jiun. Photographic film holder-processor. 3,505,939, 4-14-70, Cl. 95-13.

Huang, Chien Chang; and Hedrick, William A., to Philco-Ford Corporation. High speed non-saturating switching circuit. 3,512,016, 5-12-70, Cl. 307-303.

Huang, Ching Yun; and Maeno, Tamotsu, to Japan Gas-Chemical Company, Inc. Process for the preparation of aromatic glycols. 3,546,301, 12-8-70, Cl. 260-618.

Huang, Ching Yun; Sato, Katsuo; and Ikegami, Masuya, to Japan Gas-Chemical Company, Inc. Photopolymerization process for hydroxy alkyl acrylates. 3,515,656, 6-2-70, Cl. 204-159.22

Huang, Ching Yun; Ueno, Kazuo; and Tanabe, Hisanori, to Japan Gas-Chemical Company, Inc. Curable compositions containing epoxy resins and amine modified hydrocarbon-aldehyde resins. 3,513,221, 5-19-70, Cl. 260-830.

Huang, Cornelius Y. D.; and Merz, Kenneth M., to TRW Inc. Vitreous enamel resistance material and resistor made therefrom. 3,503,801, 3-31-70, Cl. 117-221.

Huang, Denis K.: *See—*
Brundige, Maurice M.; and Huang, Denis K.,3,536,578.

Huang, Denis K., to Westvaco Corporation. Process of inhibiting discoloration of paper and paperboard by cross linking carbohydrates with melamine or urea formaldehyde resins. 3,535,202, 10-20-70, Cl. 162-160.

Huang, Elizabeth: *See—*
Brancato, Salvatore J.; Hill, Joe M.; and Huang, Elizabeth,3,488,347.

Hubacher, Carl; and Staudacher, Emil. Shock absorption system. 3,510,999, 5-12-70, Cl. 52-99.

Hubbard, Albert B.; Larson, John C.; Larys, Bohumir A.; and Smith, Lewis F., to Mechanical Technology, Incorporated, and Rotron Manufacturing Company, Inc. Regenerative compressor. 3,545,890, 12-8-70, Cl. 417-368.

Hubbard, Albert L. Soil renovator and mulcher. 3,499,493, 3-10-70, Cl. 172-45.

Hubbard, Albert L., to General Electric Company. Fishing rod pump assembly. 3,500,570, 3-17-70, Cl. 43-18.

Hubbard, Allen S., III: *See—*
Hubbard, Rosemary Blankenship; and Hubbard, Allen S., III,3,536,897.

Hubbard, Arthur Lowell: *See—*
Copley, Russell Dean; and Hubbard, Arthur Lowell,3,515,437.

Hubbard, Howard H., to Montecatini Edison Ellettonica S.p.A. Method of forming radio frequency devices employing a destructible mold. 3,536,800, 10-27-70, Cl. 264-104.

Hubbard, James R.; Martin, Dalton W.; and McDonald, John C., to Vidar Corporation. Voltage to frequency converter having symmetrical waveshape output with fundamental frequency proportional to input signal. 3,517,339, 6-23-70, Cl. 332-14.

Hubbard, Joseph W. Target with automatically terminating visual indicator. 3,499,651, 3-10-70, Cl. 273-102.2

Hubbard, Linus O., to Wells-Gardner Electronics Corporation. Method and apparatus for assembling electrical components on printed circuit boards. 3,548,493, 12-22-70, Cl. 29-626.

Hubbard, Melvin L. Trenching apparatus. 3,508,616, 4-28-70, Cl. 172-40.

Hubbard, Peter J. Impingement type cyclonic reactor. 3,500,775, 3-17-70, Cl. 110-8.

Hubbard, Rosemary Blankenship; and Hubbard, Allen S., III. Recipe converter. 3,536,897, 10-27-70, Cl. 235-86.

Hubbard, S. Eugene, to American Metal Climax, Inc. Sliding wall panel system. 3,491,400, 1-27-70, Cl. 16-96.

Hubbard, William M., to Bell Telephone Laboratories, Incorporated. Quarternary differential-phase-modulated PCM repeater. 3,519,937, 7-7-70, Cl. 325-7.

Hubbard, William M.; and Kompfner, Rudolf, to Bell Telephone Laboratories, Incorporated. Optical heterodyne receiver with pulse widening or stretching. 3,530,298, 9-22-70, Cl. 250-199.

Hubbell, Clarence E., to Stanray Corporation. Integral circular hatch frame. 3,540,172, 11-17-70, Cl. 52-19.

Hubbell, Franklin R., III, to Tenneco Inc., mesne. Co-axial tuning tubes for muffler. 3,512,607, 5-19-70, Cl. 181-48.

Hubbell, George E., to City of Detroit, The. Settling tanks. 3,534,861, 10-20-70, Cl. 210-519.

Hubbell, Harvey, Incorporated: *See—*
Adra, Tarek B., 3,505,515.
Carissimi, Vincent L., 3,521,218.
Carlson, Ernest R.; and Lipinski, Vincent F., 3,500,286.
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Murphy, Robert M.; and Morris, Alton R., 3,525,018.
Rae, Colin T., 3,514,543.
Riley, George Albert, 3,500,056.

Hubbell, Harvey; and Carlson, Ernest R., to Hubbell, Harvey, Incorporated. Locking electrical connector. 3,500,291, 3-10-70, Cl. 339-91.

Hubble, William S., to General Motors Corporation. Regenerator disk. 3,532,157, 10-6-70, Cl. 165-8.

Hubbuch, Theodore N.: *See—*
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Hubbuch, Theodore N.; Murfree, James A., Jr.; Duncan, William A.; Sandlin, Billy J.; and Nappier, Henry A., to United States of America, Army. Gas generation carrier. 3,535,262, 10-20-70, Cl. 252-186.

Hube, Arthur B.: *See—*
Lindemann, Howard C.; and Hube, Arthur B.,3,494,564.

Huber, Alvin J., to Seismograph Service Corporation. Bidirectional amplifier. 3,519,765, 7-7-70, Cl. 179-170.

Huber, Bernd: *See—*
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Huber, Charles Louis, to Xerox Corporation. Fusing apparatus. 3,535,492, 10-20-70, Cl. 219-216.

Huber, Elisabeth, (nee Schmitt): *See—*
Schmitt, Albert, 3,536,883.

Huber-Emden, Helmut; Schaefer, Paul; Maeder, Arthur; and Hitz, Hans-Rudolf, to Ciba Limited. Antimicrobial preparations containing N-acyl-3,4- dihydro-oxazines-(1,3). 3,519,624, 7-7-70, Cl. 260-244.

Huber, George H., to Bell Telephone Laboratories, Incorporated. Digital vocoder conference system. 3,530,247, 9-22-70, Cl. 179-1.

Huber, Gottlieb Fritz. Apparatus for constructing buildings having several storeys. 3,529,387, 9-22-70, Cl. 52-126.

Huber, Hans-Peter: *See—*
Schaum, Gustav; Kremp, Rudolf; Becker, Johann; Hieber, Fritz; and Huber, Hans-Peter,3,530,250.
Schaum, Gustav; Kremp, Rudolf; Becker, Johann; Hieber, Fritz; and Huber, Hans-Peter,3,548,102.

Huber, Horst: *See—*
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Rossi, Irving; Huber, Horst; and Fastert, Herbert,3,542,118.

Huber, Horst, to Concast, Incorporated. Continuous-casting mold assembly. 3,527,287, 9-8-70, Cl. 164-283.

Huber, J., & Cie., AG: *See—*
Huber, Jakob, 3,539,101.

Huber, J. M., Corporation: *See—*
Aboytes, Peter, 3,528,840.
Bertorelli, Orlando L.; and Dacey, John F., 3,511,787.
Mays, Robert K.; and Cioni, Philip Thomas, 3,499,779.
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Rives, Joe Frank, 3,538,559.
Voet, Andries; and MacDonald, Gene William, 3,498,814.
Voet, Andries; and Price, Charles Ronald, 3,512,935.
Voet, Andries; and Lamond, Trevor George, 3,533,961.
Voet, Andries; and Lamond, Trevor George, 3,536,589.

Huber, Jakob, to Huber, J., & Cie., AG. Control arrangement for valves. 3,539,101, 11-10-70, Cl. 236-99.

Huber, Joel E., to Upjohn Company, The. Steroidal Δ^1-20(α- and β)-hydroperoxide 21- ethers. 3,541,082, 11-17-70, Cl. 260-239.55

Huber, Johann: *See—*
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Huber, Josef, to Passavant-Werke. Method and equipment for activated sludge processing of sewage. 3,505,212, 4-7-70, Cl. 210-5.

Huber, Joseph B.: *See—*
Brown, Thomas A.; and Huber, Joseph B.,3,514,137.

Huber, Ludwig. Thermoelectric generator including a vibratory burner. 3,497,397, 2-24-70, Cl. 136-208.

Huber, Ludwig. Jet-propulsion units for water craft. 3,530,673, 9-29-70, Cl. 60-221.

Huber, Mortimer J. Fluid flow proportioner. 3,529,617, 9-22-70, Cl. 137-98.

Huber, Paul S.; and Stone, Gurhrie B., to Stone Conveyor Company, Inc. Ball transfer tile. 3,530,967, 9-29-70, Cl. 193-37.

Huber, Paul S.: *See—*
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Huber, Richard A., to Bunker-Ramo Corporation, The. Regulated power supply. 3,517,301, 6-23-70, Cl. 323-20.

Huber, Richard R. Wardrobe having illuminated mirrors. 3,533,671, 10-13-70, Cl. 312-227.

Huber, Richard, to Istag A.G. Suhr/AG. Spherical plug cocks. 3,520,512, 7-14-70, Cl. 251-172.

Huber, Roy L., to Ford Motor Company. Concealed vehicle running light assembly. 3,514,589, 5-26-70, Cl. 240-46.59

Huber, Victor R., to Goodrich, B. F., Company, The. Tire. 3,487,870, 1-6-70, Cl. 152-340.

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Huber, William B.: *See—*
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Huchital, David A., to Perkin-Elmer Corporation, The. Argon laser. 3,516,012, 6-2-70, Cl. 331-94.5

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Huck, Charles M. Bedside and ambulatory portable drainage system. 3,534,738, 10-20-70, Cl. 128-275.

Huck, George E., to Ameron, Inc., mesne. Apparatus for fabricating thin-walled steel cylinders. 3,549,077, 12-22-70, Cl. 228-15.

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Huck, William F.; Wyatt, James B.; Albrecht, Alexander J.; and Gautraud, Michael G., to Brunswick Corporation. Distributing mechanism with selectively operated pin gate. 3,499,648, 3-10-70, Cl. 273-43.

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Hunter, James H., to Upjohn Company, The. 2-Thiocytosine ribofuranosides. 3,493,559, 2-3-70, Cl. 260-211.5

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Hunter, Joseph E.; and Miller, William K., to General Motors Corporation. Method of coating elongated articles by immersion. 3,539,385, 11-10-70, Cl. 117-113.

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Hunter, Patrick L.; and Bixby, William H., to North Electric Company, mesne. Emergency end cell battery charger. 3,514,687, 5-26-70, Cl. 320-15.

Hunter, Paul D., to Bell Telephone Laboratories, Incorporated. Data insertion in a content addressable sequentially ordered file. 3,544,975, 12-1-70, Cl. 340-172.5

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Hunter, Richard S.; Christie, John S.; and Robinson, Roland D., to Hunter Associates Laboratory, Inc. Adjustable scale colorimeter. 3,525,572, 8-25-70, Cl. 356-176.

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Hunter, William Allan, to Heatherwill Company. Method of matchplate moulding. 3,506,058, 4-14-70, Cl. 164-37.

Hunter, William Allan, to Heatherwill Company. Fill carriages for automatic matchplate moulding machines. 3,520,348, 7-14-70, Cl. 164-193.

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Hunter, William B.; and Wiegert, Robert E., to Ward Manufacturing, Inc. Camping trailer. 3,514,148, 5-26-70, Cl. 296-23.

Hunter, William D. Multi-positionable exercising device. 3,540,724, 11-17-70, Cl. 272-63.

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Huntley, William F.; and Potty, Leo J., to United States of America, Navy, mesne. Klystron tuning means. 3,530,331, 9-22-70, Cl. 315-5.21

Huntoon, Francis E., to Teletype Corporation. Method of mounting bearings. 3,518,747, 7-7-70, Cl. 29-446.

Hunts, Barney D., to Singer Company, The. Monolithic complementary semiconductor device. 3,502,951, 3-24-70, Cl. 317-235.

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Hunziker, Louis A. Test tank for marine engines. 3,543,573, 12-1-70, Cl. 73-117.1

Hunziker, Walter Emil; and Murbach, Erwin Robert, to Zellweger, Ltd. Apparatus and method for determining the count of textile materials. 3,496,366, 2-17-70, Cl. 250-219.

Huob, Konrad; Giraudi, Giorgio; and Rossi, Gianfranco, to Grace, W. R., & Co. Process and equipment for packaging articles. 3,546,836, 12-15-70, Cl. 53-33.

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Hurd, George K., to Thomas, Joy M. Blowerless heater. 3,502,066, 3-24-70, Cl. 126-59.5

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Hurd, Yorick G., to Carpenter, L. E., & Company. Method and apparatus for surface treatment of workpiece. 3,491,566, 1-27-70, Cl. 72-76.

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Huret, Jerome; Chevalier, Michel; and Rocherolles, Raymond, to Compagnie Generale d'Electricite. Switchgear structure for high D.C. voltages. 3,515,976, 6-2-70, Cl. 321-8.

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Hurko, Bohdan; and Anderson, A. Melcher, to General Electric Company. Self-cleaning forced convection oven. 3,529,582, 9-22-70, Cl. 126-21.

Hurko, Bohdan; and Dills, Raymond L., to General Electric Company. Self-cleaning gas cooking. 3,507,265, 4-21-70, Cl. 126-21.

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Hurlbert, Bernard S.; and Hitchings, George H., to Burroughs Wellcome & Co. (U.S.A.) Inc.Certain 5-phenyl-2,4,7-triaminopyrido[2,3-d]pyrimidines. 3,505,332, 4-7-70, Cl. 260-256.4

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Hurle, Donald Thomas James; and Mullin, John Brian, to National Research Development Corporation. Production of single crystal material. 3,546,027, 12-8-70, Cl. 148-1.6

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Hurley, Daniel J.; and Rosenthal, Robert W., to Gulf Research & Development Company. Process for separating hydrocarbons from amines by conversion to amine salts and azeotrope distillation. 3,536,593, 10-27-70, Cl. 203-34.

Hurley, John Lyons, to International Nickel Company, Inc., The. Shock resisting steel containing chromium and steel. 3,489,552, 1-13-70, Cl. 75-128.

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Hurley, Rupert B.: *See—*
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Hurlock, John R., to Nalco Chemical Company. Method of removing water from water-soluble polymers. 3,507,840, 4-21-70, Cl. 260-80.

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Hursch, James R.; Weimer, Ralph E.; Miller, Dye O., Jr.; and Weiss, Frank F., to McDonald's System, Inc. Bun toaster. 3,517,605, 6-30-70, Cl. 99-423.

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Hurst, Charles W.: *See—*
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Hurst, Charles W., to Procter & Gamble Company, The. Apparatus for in-mold removal of flash. 3,499,071, 3-3-70, Cl. 264-94.

Hurst, Elmer C.; and Hupf, Homer B., to United States of America, Atomic Energy Commission. Method for separating molybdenum from technetium. 3,519,385, 7-7-70, Cl. 23-22.

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Hurst, Gilchrist L., to Mohawk Data Sciences Corporation, mesne. Continuously moving endless band non-impact transfer printer. 3,495,268, 2-10-70, Cl. 346-74.

Hurst, James E., to Eastman Kodak Company. Centrifugal switching means for D.C. motor speed control. 3,515,972, 6-2-70, Cl. 318-325.

Hurst, John F.; and Bodri, Joseph S., to Oppenheimer, Inc. Optical readout apparatus. 3,545,114, 12-8-70, Cl. 40-130.

Hurst, John G.; and Young, David H. Level sensitive control apparatus. 3,495,634, 2-17-70, Cl. 141-40.

Hurst, Kenneth, to Combustion Engineering, Inc. Small diameter induction heater having fluid cooled coil. 3,492,453, 1-27-70, Cl. 219-10.49

Hurst, Kenneth, to Combustion Engineering, Inc. Tube cleaning pellet gun. 3,531,813, 10-6-70, Cl. 15-104.06

Hurst, Kurt, to Bosch, Robert, G.m.b.H. Recording apparatus using a metallized recording medium. 3,534,382, 10-13-70, Cl. 346-74.

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Hurst, Robert D. Golf swing practice device. 3,498,616, 3-3-70, Cl. 273-186.

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Hurst, William M., to United States of America, Navy. Deformable gages. 3,525,250, 8-25-70, Cl. 73-35.

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Hurt, John G., Jr., to Westinghouse Electric Corporation. Transducer with thin magnetic strip, drive winding and sense winding. 3,521,258, 7-21-70, Cl. 340-174.1

Hurt, Zeno, to Agon Uhrenfabrik Robert Triebold A.G. Watch. 3,533,228, 10-13-70, Cl. 58-125.

Hurtes, Walter. Method for manufacturing an article having a nonwoven pile. 3,499,807, 3-10-70, Cl. 156-72.

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Hurtle, Ralph L., to General Electric Company. Cascaded electric current interrupting device with ionized gas assisting in breakdown and eventual arc extinction. 3,489,870, 1-13-70, Cl. 200-144.

Hurtle, Ralph L., to General Electric Company. Electric protective system. 3,493,815, 2-3-70, Cl. 317-16.

Hurtle, Ralph L., to General Electric Company. Current limiting static alternating current circuit breaker. 3,501,677, 3-17-70, Cl. 317-33.

Hurtle, Ralph L., to General Electric Company. Electric circuit interrupting device with solid state shunting means. 3,504,233, 3-31-70, Cl. 317-11.

Hurtle, Ralph L.; and Willard, Henry G., to General Electric Company. Current-limiting circuit breaker with novel arc initiating and extinguishing means. 3,515,829, 6-2-70, Cl. 200-144.

Hurtle, Ralph L.; and Willard, Henry G., to General Electric Company. Current limiting circuit breaker with independent acting high speed opening means. 3,516,090, 6-2-70, Cl. 335-16.

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Huruta, Yooichi; and Adachi, Yoshiharu, to Aisin Seiki Company Limited. Pneumatic booster assembly for brake system, especially adapted for automotive use. 3,540,219, 11-17-70, Cl. 60-54.5

Huruya, Akio: *See—*
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Hurvitz, Hyman: *See—*
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Hurwitz, Jacob S. Bed construction. 3,501,786, 3-24-70, Cl. 5-207.

Hurwitz, Marvin J.; Aschkenasy, Herbert; and Kelley, Louis E., to Rohm & Haas Company. Cellulosic fibrous products and methods of making them. 3,527,719, 9-8-70, Cl. 260-17.4

Hurwitz, Marvin J.; and Cenci, Harry J., to Rohm & Haas Company. Modified vinyl chloride resin compositions. 3,536,788, 10-27-70, Cl. 260-890.

Hurwitz, Mathew; and Melcher, James R., to PPG Industries, Inc. Sheet glass thickness control method and apparatus. 3,496,736, 2-24-70, Cl. 65-99.

Hurwitz, Paul D., to Sherman Car Wash Equipment Co. Scrubbing apparatus for vehicles. 3,499,180, 3-10-70, Cl. 15-97.

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Hurworth, Neville Robert; and Brewis, Derek McHardy, to Imperial Chemical Industries Limited. Polyesters of carprolactone, terephthalic acid, and ethylene glycol. 3,502,623, 3-24-70, Cl. 260-76.

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Husby, Donald E.; and Goetz, Alfred K., to Westinghouse Electric Corporation. Heavy duty floodlight with replaceable optical system. 3,551,667, 12-29-70, Cl. 240-3.

Huseby, Robert A.; and Garner, Paul B., to Smith, A. O., Corporation. Method of making steel powder. 3,528,081, 9-8-70, Cl. 75-0.5

Husenblas, Helmut; and Bachmann, Dieter, to Rheinstahl Henschel A.G. Hydraulic apparatus for varying the ground clearance of land vehicles not supported on rails. 3,528,671, 9-15-70, Cl. 280-6.

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Huskins, Chester W.; Howard, Clay D.; and Ayers, Orval E., to United States of America, Army. Difluoroamino compounds. 3,539,617, 11-10-70, Cl. 260-465.5

Huskins, Chester W.; Howard, Clay D.; and Ayers, Orval E., to United States of America, Army. Nitrated cellulose rocket propellants with amino fluorine containing plasticizer. 3,551,224, 12-29-70, Cl. 149-18.

Husome, Robert G. Rebound type checkweigher. 3,545,611, 12-8-70, Cl. 209-74.

Huss, Otto, to Marker, Hannes. Toe iron for safety ski bindings. 3,508,761, 4-28-70, Cl. 280-11.35

Hussey, Robert D., to Scoa Industries, Inc. Jack for handsewn shoes. 3,537,119, 11-3-70, Cl. 12-123.

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Groth, Wilhelm; and Hussmann, Peter,3,538,612.

Hussmann, Peter, to Uta-Patentverwaltungsgesellschaft mbH, mesne. Apparatus for manufacture of heat-sensitive products. 3,547,179, 12-15-70, Cl. 159-4.

Husted, David W.; and Holbrook, James A., to Bain Corporation. Rotating prism system. 3,539,251, 11-10-70, Cl. 352-113.

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Huston, Leroy S., Jr., to Sylvania Electric Products, Inc. Incandescent lamp. 3,497,753, 2-24-70, Cl. 313-271.

Huston, Leroy S., Jr., to Sylvania Electric Products, Inc. Method of making a glass to glass seal. 3,505,050, 4-7-70, Cl. 65-34.

Huston, Owen H., to Schlumberger Technology Corporation. Formation dip measuring methods and apparatus using induction coils. 3,510,757, 5-5-70, Cl. 324-6.

Huston, Roberta L.: *See—*
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Huston, Victor J.; and Huston, Roberta L. Photocell device to prevent automobile rear end collisions. 3,514,610, 5-26-70, Cl. 250-106.

Huston, Walter R.; and Limpach, Paul D., to Automatic Feed Company. Feed control means. 3,528,318, 9-15-70, Cl. 74-600.

Huszar, Josef, to Gebr. Bohler & Co. Aktiengesellschaft. Hole drilling in mountain ranges covered by earth or loose rocks. 3,540,536, 11-17-70, Cl. 175-65.

Hutchens and Son Metal Products, Inc.: *See—*
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Hutchens, Morris L.: *See—*
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Hutchens, Ralph W., Sr. Scaffolding and material handling system. 3,548,970, 12-22-70, Cl. 182-129.

Hutcheon, Charles F. Plastic net extruding apparatus and plastic net produced thereby. 3,512,215, 5-19-70, Cl. 18-12.

Hutcheon, Ian Carrodus, to Kent, George Limited. Electric controller devices. 3,523,193, 8-4-70, Cl. 307-116.

Hutches and Son Metal Products, Inc.: *See—*
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Hutchings, Kenneth J., to Pacific Plantronics, Inc. Self-supporting headset. 3,548,118, 12-15-70, Cl. 179-156.

Hutchings, Le Roi E., to Great Lakes Carbon Corporation. Oxidation of fused ring hydrocarbons. 3,510,498, 5-5-70, Cl. 260-385.

Hutchings, LeRoi E., to Great Lakes Carbon Corporation. Separation of cokes into needle-like and non- needle-like particles and the production of carbon or graphite bodies. 3,526,684, 9-1-70, Cl. 264-29.

Hutchings, Thomas J.: *See—*
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Hutchins, Alma A. Powered revolving abrasive tool. 3,496,680, 2-24-70, Cl. 51-170.

Hutchins, Alma A. Backing pad for sanding discs. 3,510,992, 5-12-70, Cl. 51-378.

Hutchins, Alma A. Clip for surface treating tool. 3,546,822, 12-15-70, Cl. 51-170.

Hutchins, Bernard A.; and Walsh, Robert S., to Eastman Kodak Company. Recovery of color developing agents. 3,502,577, 3-24-70, Cl. 210-59.

Hutchins, Charles K., Jr., to Fram Corporation. Filter. 3,490,594, 1-20-70, Cl. 210-232.

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Hutchins, Loren W., to Douthitt Corporation. Zone control valve for vacuum film holder. 3,545,860, 12-8-70, Cl. 355-91.

Hutchins, Raymond F., to Container Corporation of America. Reinforced shipping container. 3,534,900, 10-20-70, Cl. 229-33.

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Hutchinson, Desmond Ernest: *See—*
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Hutchinson, Desmond Ernest; and Dufton, Christopher James, to English Electric Company Limited, The. Actuators. 3,491,615, 1-27-70, Cl. 74-625.

Hutchinson, Harold D. Magnetic touch latch. 3,492,037, 1-27-70, Cl. 292-251.5

Hutchinson, Harold D.; and Gregge, William C. Flow responsive switch means. 3,501,605, 3-17-70, Cl. 200-81.9

Hutchinson, Herman R., to Pennwalt Corporation. D.C. powered plasma arc method and apparatus for refining molten metal. 3,547,622, 12-15-70, Cl. 75-10.

Hutchinson, John W.; Kao, Teh-Yu; and Pendley, Laurence C., to University of Kentucky Research Foundation, The, mesne. Method of and apparatus for testing dynamic permeability and hydrodynamic surface drainage of materials. 3,548,635, 12-22-70, Cl. 73-38.

Hutchinson, Kenneth A.: *See—*
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Hutchinson, Lawrence C.; and Megarry, Edward P., to American Optical Corporation. Attachment mouunting means for hearing protector ear cups. 3,505,684, 4-14-70, Cl. 2-209.

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Hutchinson, Richard C. Flexible tape optical programmer. 3,530,341, 9-22-70, Cl.

Hutchinson, Robert O.: *See—*
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Hutchinson, Thomas J.; and Dolan, James J., to Spectrolab, a division of Textron Electronics, Inc. Laser goggles. 3,519,339, 7-7-70, Cl. 351-44.

Hutchinson, Thomas K. Gluing machine with protected advancing mechanism. 3,518,966, 7-7-70, Cl. 118-301.

Hutchinson, Walter F.; Koss, Gerald G.; and Wickstrum, Leland E., to Bunker-Ramo Corporation, The, mesne. Process of assembling components by using a removable template. 3,540,121, 11-17-70, Cl. 29-626.

Hutchinson, William Earl, to Stauffer-Wacker Silicone Corporation, mesne. Organopolysiloxane elastomers compounded with alkoxy silanes. 3,505,276, 4-7-70, Cl. 260-37.

Hutchinson, William M., to Phillips Petroleum Company. Solvent extraction of HF-containing mixtures. 3,488,920, 1-13-70, Cl. 55-56.

Hutchinson, William M., to Phillips Petroleum Company. Solvent extraction of hydrogen halides. 3,488,923, 1-13-70, Cl. 55-71.

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Hutchison, Carl R., to FMC Corporation. Underwater well completion system. 3,489,213, 1-13-70, Cl. 166-0.5

Hutchison, Carl R., to FMC Corporation. Underwater well completion system. 3,548,934, 12-22-70, Cl. 166-0.5

Hutchison, Leroy E. Auto clothing extension hanger. 3,540,601, 11-17-70, Cl. 211-32.

Huth, Gerald C., to General Electric Company. Energy converter. 3,538,356, 11-3-70, Cl. 310-3.

Huth, Gerald C.; and Davies, Robert L., to General Electric Company. Semiconductor devices with increased voltage breakdown characteristics. 3,491,272, 1-20-70, Cl. 317-234.

Huth, Gerald C.; and Locker, Robert J., to General Electric Company. Low energy, interference-free, pulsed signal transmitting and receiving device. 3,527,949, 9-8-70, Cl. 250-199.

Huth, Gerald O.; Schulz, Raymond A.; and Wolterman, Arden J., to International Business Machines Corporation. Field-effect, electronic switch. 3,532,899, 10-6-70, Cl. 307-251.

Huther, Wolfgang; Dane, Ivo; Fromandi, Guido; and Schneider, Paul. Process for increasing the bond strength between rubber and textiles using N-substituted 1,3,5 dioxazine. 3,527,657, 9-8-70, Cl. 117-138.8

Hutkin, Irving J., to Lash Manufacturing, Inc. Composite material for shielding electrical and magnetic energy. 3,512,946, 5-19-70, Cl. 29-195.

Hutner, Mark A., to Teletype Corporation. Memory control circuit for clutching, braking and reversing a motor. 3,495,151, 2-10-70, Cl. 318-284.

Hutson, Jearld L. Thyristor having sensitive gate turn-on characteristics. 3,524,114, 8-11-70, Cl. 317-235.

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Hutson, Thomas, Jr.; and Ritter, Ronald E., to Phillips Petroleum Company. Removal of oxygen and oxygenated compounds from unsaturated hydrocarbons. 3,536,775, 10-27-70, Cl. 260-681.5

Hutson, Tom, Jr.; and Carter, Cecil O., to Phillips Petroleum Company. Removing metal halides from alkylation reaction products. 3,506,409, 4-14-70, Cl. 23-312.

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Hutton, Harry T., Jr., to Air Reduction Company, Incorporated. Means for introducing gas to oxygen stream. 3,503,557, 3-31-70, Cl. 239-433.
Hutton, Henry M., Jr., to Pineville Kraft Corporation. Wire pole handling apparatus. 3,542,226, 11-24-70, Cl. 214-512.
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Hutton, William C.; and Reibold, Robert C., to McDonnell Douglas Corporation, mesne. Analog comparator. 3,516,060, 6-2-70, Cl. 340-149.
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Irwin, James, to PPG Industries, Inc. Use of coal in electrodepositable compositions. 3,493,482, 2-3-70, Cl. 204-181.

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Irwin, Thomas R.; Freer, Wilbur G., Jr.; and Doidge, William A., to Dow Chemical Company, The. Carrousel sealing apparatus for tower packing bundles. 3,540,972, 11-17-70, Cl. 156-567.

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Isaacks, Elmer H. Shopping cart wheel lock. 3,495,688, 2-17-70, Cl. 188-31.

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Isaacs, Griffin L., to United States Steel Corporation. Apparatus for removing material from cylindrical workpieces. 3,535,900, 10-27-70, Cl. 72-40.

Isaacs, Jack. Reversible garments. 3,495,274, 2-17-70, Cl. 2-96.

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Isaf, Asad F. Butter storing and spreading package. 3,545,873, 12-8-70, Cl. 401-98.

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Isaksen, Robert A.: *See—*
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Isawa, Akira: *See—*
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Iscowitz, Sigmund, to Clairol Incorporated. Stabilized nitroaminobenzene dyeing compositions. 3,488,138, 1-6-70, Cl. 8-10.1

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Jackson, John Peter, to English Electric Company Limited, The. Torque sensitive machines. 3,528,285, 9-15-70, Cl. 73-134.
Jackson, Johno M.: *See—*
Grable, Donovan B.; and Jackson, Johno M.,3,516,762.
Jackson, Joseph C., to Certain-Teed Products Corporation. Pipe closure plug. 3,494,504, 2-10-70, Cl. 220-24.5
Jackson, Joseph F., to Pratt Precision Hydraulics Limited. Hydraulic torque amplifiers. 3,516,333, 6-23-70, Cl. 91-380.
Jackson, Leland B., to Bell Telephone Laboratories, Incorporated. Digital phase equalizer. 3,537,015, 10-27-70, Cl. 328-167.
Jackson, Leland B.; and McDonald Henry S., to Bell Telephone Laboratories, Incorporated. Digital filters. 3,522,546, 8-4-70, Cl. 328-167.
Jackson, Marion: *See—*
Woodruff, H., Boyd; and Jackson, Marion,3,524,797.
Jackson, Norman Charles, to Standard Products Company, The. Exterior molding structure. 3,543,465, 12-1-70, Cl. 52-716.
Jackson, Norman Walter, to Molins Machine Company Limited. Handling rod-like articles. 3,550,750, 12-29-70, Cl. 198-34.
Jackson, Oscar R. Worm trap. 3,543,433, 12-1-70, Cl. 43-78.
Jackson, Peter Howard, to Eastman Kodak Company. Method for controlling sublimation during the preparation of polyesters. 3,529,013, 9-15-70, Cl. 260-475.
Jackson, Prentiss W.: *See—*
Conde, Hector O.; and Jackson, Prentiss W.,3,541,545.
Jackson, Raymond G., to Bell Telephone Laboratories, Incorporated. Electronic common switch for a telephone set. 3,525,819, 8-25-70, Cl. 179-84.
Jackson, Raymond P.; Schramm, Jacob; and Van Rooyen, Daniel, to International Nickel Company, Inc., The. Corrosion resistant stainless type alloys. 3,492,117, 1-27-70, Cl. 75-128.
Jackson, Richard A., to Minnesota Mining and Manufacturing Company. Static eliminator device. 3,531,688, 9-29-70, Cl. 317-2.
Jackson, Richard Kelley. Motor driven golf cart with detachable rider unicycle. 3,513,924, 5-26-70, Cl. 180-11.
Jackson, Richard Robert. Surgical mask. 3,490,447, 1-20-70, Cl. 128-139.
Jackson, Richard, to Technical Resources, Inc., mesne. Control for devices used in surgery. 3,494,363, 2-10-70, Cl. 128-303.14
Jackson, Robert A.: *See—*
Hultgren, David H.; and Jackson, Robert A.,3,529,171.
Jackson, Robert C., to Monsanto Company. Method and apparatus for making dimensionally stable nonwoven fabric. 3,488,819, 1-13-70, Cl. 28-4.
Jackson, Robert Cheves, to Monsanto Company. Dimensionally stable non-woven fabric. 3,551,265, 12-29-70, Cl. 161-57.

Jackson, Robert G., to Conch Ocean Limited. Container for liquefied gases. 3,537,415, 11-3-70, Cl. 114-74.

Jackson, Robert G.; and Massac, Gilbert, to Conch Ocean Limited. Container for liquefield gases. 3,547,302, 12-15-70, Cl. 220-15.

Jackson, Robert Glover, to Conch International Methane Limited. Thermal insulation structures. 3,525,661, 8-25-70, Cl. 161-37.

Jackson, Robert L., Jr.; and Kovreg, Louis A., to American Air Filter Company, Inc. Method and apparatus for making filamentous products. 3,506,420, 4-14-70, Cl. 65-4.

Jackson, Robert L., to General Electric Company. Balanced three-bellows expansion joint. 3,488,949, 1-13-70, Cl. 60-39.32

Jackson, Robert V.: *See—*
Burkett, Wilford B.; and Jackson, Robert V.,3,517,293.
Butkett, Wilford B.; and Jackson, Robert V.,3,497,706.

Jackson, Robert V., to Mc Culloch Corporation. Control circuit for direct current starter-generator. 3,536,982, 10-27-70, Cl. 320-63.

Jackson, Robert W.: *See—*
Beal, Philip F., III; and Jackson, Robert W.,3,502,659.

Jackson, Robert W.; and Babcock, John C., to Upjohn Company, The. 3-Oximes of 17(20)-en-21-oic acids of the pregnane series. 3,535,348, 10-20-70, Cl. 260-397.1

Jackson, Robert W.; and Babcock, John C., to Upjohn Company, The. Oral, parenteral and inhalation therapy with 3,11- dioxo-4,17(20)-cis-pregnadien-21-oic acid, methyl ester, 3-oxime. 3,539,683, 11-10-70, Cl. 424-45.

Jackson, Samuel G. Oil-fired heater. 3,499,635, 3-10-70, Cl. 263-19.

Jackson, Sophia F.: *See—*
Jackson, Earl R.,3,500,791.

Jackson, Thomas Jefferson. Measurement of voltage-leakage in capacitors. 3,508,146, 4-21-70, Cl. 324-60.

Jackson Vibrators, Inc.: *See—*
Anderson, James E.; and Izdebski, Simon S., 3,494,300.
Strasser, David G., 3,547,038.

Jackson, Wilbur F.; and Braucksiek, Henry C., to Robertshaw Controls Company. Dual sensing thermostatic control device. 3,532,269, 10-6-70, Cl. 236-21.

Jackson, Wilbur. Automatic stop motion for carpet tufting machines. 3,529,560, 9-22-70, Cl. 112-79.

Jackson, William B.: *See—*
Albright, Donald R.; and Jackson, William B.,3,506,914.
Favro, Alden E.; and Jackson, William B.,3,511,026.

Jackson, William J., to Cincinnati Milling Machine Co., The. Cutter grinder with backlash preventing means. 3,490,180, 1-20-70, Cl. 51-123.

Jackson, William P.: *See—*
Leach, Pembroke O.; Jackson, William P.; and Camp, Vernon W.,3,546,426.

Jackson, William R., to Grace, W. R., & Co. Case hardening of concrete with fine vermiculite. 3,499,070, 3-3-70, Cl. 264-79.

Jackson, William Wayne; and Essex, Duane Arnold, to Deere & Company. Rod weeder. 3,515,219, 6-2-70, Cl. 172-44.

Jackson, Winston J., Jr., to Eastman Kodak Company. Laminates of oxidized epoxy resins with linear thermoplastic polyesters or polyamides and methods of making same. 3,539,443, 11-10-70, Cl. 161-186.

Jackson, Winston J., Jr.; and Caldwell, John R., to Eastman Kodak Company. Polyester resin melt adhesive laminate and method of making same. 3,515,628, 6-2-70, Cl. 161-184.

Jackson, Winston J., Jr.: *See—*
Caldwell, John R.; and Jackson, Winston J., Jr.,3,514,422.
Caldwell, John R; and Jackson, Winston J., Jr.,3,517,071.
Caldwell, John R.; and Jackson, Winston J., Jr.,3,518,040.
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Jacksonville Blow Pipe Company: *See—*
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Jaclo, Inc.: *See—*
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Jacob, Beatrice A. Feeding utensils for children. 3,514,887, 6-2-70, Cl. 40-324.

Jacob, Hans Helmut: *See—*
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Jacob, Harvey B.: *See—*
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Jacob, Ingolf: *See—*
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Jacob, Jean-Baptiste: *See—*
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Jacob, Lewis A., Jr.: *See—*
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Jacob, Louis, to Commissariat a l'Energie Atomique. Method and device for amplification of a laser pulse. 3,514,709, 5-26-70, Cl. 330-4.3

Jacob, Oliver J., to General Motors Corporation. Torsion spring attachment means. 3,528,649, 9-15-70, Cl. 267-57.

Jacob, Stanley W.: *See—*
Dobson, Richard L.; Jacob, Stanley W.; and Herschler, Robert J.,3,499,961.
Herschler, Robert J.; and Jacob, Stanley W.,3,549,770.

Jacobaeus, Anton Christian, to Telefonaktiebolaget L M Ericsson. Method of transmitting speech in ciphered form and arrangement for carrying out the method. 3,504,286, 3-31-70, Cl. 325-32.

Jacobawsky, Armin, to Knapsack Aktiengesellschaft. Process for recovering mercury from an inactive mercuric chloride/active carbon-catalyst. 3,537,843, 11-3-70, Cl. 75-81.

Jacobellis, Alphonse A.: *See—*
Zahid, Abduz; and Jacobellis, Alphonse A.,3,542,062.

Jacobi, Arno M. Swingable support device. 3,494,666, 2-10-70, Cl. 297-426.

Jacobi, Edward N., to Briggs & Stratton Corporation. Key controlled lock having built-in switch actuator operated by insertion and removal. 3,520,161, 7-14-70, Cl. 70-387.

Jacobi, Edward N., to Briggs & Stratton Corporation. Removable lock with improved retainer. 3,526,111, 9-1-70, Cl. 70-368.

Jacobi, Ernst; Erdmann, Dietrich; Mohr, Gunther; Lust, Sigmund; Schneider, Gerhart; and Niethammer, Konrad, to Merck, E., AG. Agents for combating undesirable plant growth. 3,506,434, 4-14-70, Cl. 71-89.

Jacobovici, Theodor: *See—*
Tanner, Richard; Jacobovici, Theodor; and Wuthrich, Fritz,3,533,365.

Jacobowsky, Armin; Wirtz, Peter; Born, Klaus; and Rechmeier, Gerhard, to Knapsack Aktiengesellschaft. Process for reducing the 2-chlorobutadiene-(1,3) and benzene contents of 1,2-dichloroethane recovered from 1,2-dichlororethane thermally cracked into vinyl chloride. 3,548,014, 12-15-70, Cl. 260-652.

Jacobs, Abe: *See—*
Greenberg, Samuel; Jacobs, Abe; and Northnagel, Davis B.,3,528,132.

Jacobs, Albert L. Chemical gold mining. 3,545,965, 12-8-70, Cl. 75-101.

Jacobs, Alfred J.; and Napier, Joseph T., to Baxter, J. H., & Co. Apparatus for deep incising poles. 3,515,184, 6-2-70, Cl. 144-2.

Jacobs, Arthur F., to Prudential Lighting Corporation. Combination latch and hinge apparatus. 3,525,544, 8-25-70, Cl. 292-18.

Jacobs, Arthur W. Tube coupling. 3,501,177, 3-17-70, Cl. 285-322.

Jacobs, Bernard; Kulicke, Frederick W., Jr.; and Price, Richard D., to Kulicke and Soffa Industries, Inc. Method and apparatus for treating semiconductor wafers. 3,489,608, 1-13-70, Cl. 134-25.

Jacobs, Carl: *See—*
Risom, Jens; and Jacobs, Carl,3,495,731.

Jacobs, Charles E. Interchangeable sports shoe. 3,526,976, 9-8-70, Cl. 36-2.5

Jacobs, Charles T., to G-V Controls, Inc. Telephone dialing apparatus. 3,529,100, 9-15-70, Cl. 179-90.

Jacobs, Daniel A.; and Hamill, Herbert R., to Engelhard Minerals & Chemicals Corporation, mesne. Attapulgite clay dispersions and preparation thereof. 3,509,066, 4-28-70, Cl. 252-313.

Jacobs, Daniel A.: *See—*
Allegrini, Aldo P.; Jacobs, Daniel A.; and Mercade, Venanico V.,3,503,499.

Jacobs, Earl D.; Durrett, Ronald H., deceased (by Swanson, Hubert C., administrator); Hutchings, Thomas J.; Winocur, Joseph; and Zingery, Wilbur L., to North American Rockwell Corporation. Ring laser which utilizes only one of the counter- rotating beams to determine rotation rate. 3,545,866, 12-8-70, Cl. 356-106.

Jacobs, Earl D.; and Zingery, Wilbur L., to North American Rockwell Corporation. Accelerometer. 3,517,560, 6-30-70, Cl. 73-516.

Jacobs, Edward C., 1/2 to Cilia, Vincent. Dispensers for flush tank toilet fixtures. 3,521,306, 7-21-70, Cl. 4-228.

Jacobs, Ellis H.; and Billyard, Ronald G., to Pacific Pipe Company. Self-draining valve for fluid distribution systems. 3,548,860, 12-22-70, Cl. 137-289.

Jacobs, F. L., Co.: *See—*
Emaus, Thomas H., 3,521,938.

Jacobs, Gerard O.: *See—*
Rowland-Hill, Edward W.; Jacobs, Gerard O.; and Van Herpe, Francois,3,512,534.

Jacobs, Gilbert R., to Ja-Bar Silicone Corporation. Platen. 3,507,739, 4-21-70, Cl. 161-114.

Jacobs, Harold; Hofer, Ronald C.; Morris, George E.; and Horn, Edward Y., to United States of America, Army. Millimeter wave imaging system. 3,524,016, 8-11-70, Cl. 178-6.

Jacobs, Henry S. Floodlight housing and support. 3,519,811, 7-7-70, Cl. 240-3.

Jacobs, Herbert V.: *See—*
Schwenk, Arthur; Wajda, Michael L.; Baron, Herschel; and Jacobs, Herbert V.,3,539,177.

Jacobs, James W., to General Motors Corporation. Means for automatically preheating a clothes dryer. 3,540,241, 11-17-70, Cl. 68-12.

Jacobs, James W., to General Motors Corporation. Control system for refrigerator with automatic ice maker and defrosting means. 3,541,806, 11-24-70, Cl. 62-233.

Jacobs, James W., to General Motors Corporation. Dryer apparatus with light controlled variable speed tumbling drum. 3,546,786, 12-15-70, Cl. 34-52.

Jacobs, James W.; and Cleemann, Johann. Refrigeration defrost by compressor motor. 3,546,895, 12-15-70, Cl. 62-156.

Jacobs, Johannis L. M.: *See—*
Hoogendonk, Johan W.; Jacobs, Johannis L. M.; and Brans, Theodorus J.,3,496,177.

Jacobs, John E. Composite target structure for television, X-ray and ultrasound camera tube. 3,505,558, 4-7-70, Cl. 315-11.

Jacobs, Joseph M. Strip solder feeding device. 3,521,804, 7-28-70, Cl. 228-52.

Jacobs, Justin M., Jr. Slide viewer. 3,488,871, 1-13-70, Cl. 40-63.

Jacobs Machine Corporation: *See—*
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Jacobs Manufacturing Company, The: *See—*
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Haviland, Girard S.; and McCarthy, Donald J., 3,491,840.
Haviland, Girard S.; and McCarthy, Donald J., 3,521,894.
Haviland, Girard S., 3,534,625.
Haviland, Girard S., 3,545,776.

Jacobs, Peter Charles, to Jaycopter Corporation, Ltd. Captive helicopter apparatus. 3,512,773, 5-19-70, Cl. 272-31.

Jacobs, Richard L., to Sherwin-Williams Company, The. Method for producing heterocyclic dicarboximides. 3,525,747, 8-25-70, Cl. 260-250.

Jacobs, Richard L., to Sherwin-Williams Company, The, mesne. Process for preparing dicarboximide derivatives. 3,539,568, 11-10-70, Cl. 260-250.

Jacobs, Robert B.; Kapff, Sixt Frederick; and Ginsburgh, Irwin, to Standard Oil Company. Leak detecting method and apparatus. 3,538,746, 11-10-70, Cl. 73-49.2

Jacobs, Robert G.: *See—*
Mueller, Carl E.; Bowers, Frederic M.; and Jacobs, Robert G.,3,535,164.

Jacobs, Sigmund J., to United States of America, Navy. Explosive wave shaper. 3,517,615, 6-30-70, Cl. 102-22.

Jacobs, Thomas Antonius Cornelis: *See—*
de Ridder, Jan; Jacobs, Thomas Antonius Cornelis; and Prijn, Cornelis,3,488,543.

Jacobs, Thomas Antonius Cornelis; Notelteirs, Victor Rosallie; and Rijnders, Johannes, to U.S. Philips Co., Inc. Dual-beam incandescent lamp. 3,493,806, 2-3-70, Cl. 313-113.

Jacobs, William H.: *See—*
Norton, Robert L.; and Jacobs, William H.,3,539,081.

Jacobs, William L., to Universal Oil Products Company. Jet fuel kerosene and gasoline production from gas oils. 3,540,999, 11-17-70, Cl. 208-59.

Jacobs, William L.; and Watkins, Charles H., to Universal Oil Products Company. Supersonic jet fuel production. 3,544,448, 12-1-70, Cl. 208-59.

Jacobs, William; and Norton, Robert L., to Jet Spray Cooler, Inc. Multibeverage dispenser. 3,503,541, 3-31-70, Cl. 222-129.1

Jacobsen, Alf M.: *See—*
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Adams, Archie Q., 3,545,685.

Jacobsen, Allen I. Variable resistance swimmer training device. 3,517,930, 6-30-70, Cl. 272-71.

Jacobsen, Edward R. Orchard scaffold. 3,529,696, 9-22-70, Cl. 182-129.

Jacobsen, Hans R.: *See—*
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Jacobsen, Hans R.; and Jensen, Elmer W., to Geoscience Instruments Corporation. Polishing apparatus. 3,504,457, 4-7-70, Cl. 51-131.

Jacobsen, Jacob. Equipoised lamp. 3,543,019, 11-24-70, Cl. 240-81.

Jacobsen, Jon S., to Olson, Richard F. Center locater device. 3,548,508, 12-22-70, Cl. 33-206.

Jacobsen Manufacturing Company: *See—*
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Heth, Sherman C.; Kaufman, Vernon R.; and Munson, Lyle G., 3,488,869.
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Heth, Sherman C.; and Kaufman, Vernon R., 3,514,926.
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Strasel, Raymond K., 3,511,035.

Jacobsen, Ronald L.: *See—*
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Perry, Ronald A.; Baukol, Ronald O.; and Jacobsen, Ronald L.,3,529,923.

Jacobson, Alden H., to Heald Machine Company, The. Boring bar with means to reduce vibrations. 3,499,351, 3-10-70, Cl. 77-58.

Jacobson, Alden H., to Heald Machine Company, The. Machine tool feed means. 3,530,743, 9-29-70, Cl. 77-3.

Jacobson, Alden H., to Heald Machine Company, The. Machine tool. 3,530,744, 9-29-70, Cl. 77-57.

Jacobson, Alden H.; and Larson, Albert L., to Heald Machine Company, The. Machine tool. 3,503,283, 3-31-70, Cl. 77-1.

Jacobson and Sons Construction Co., Inc.: *See—*
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Jacobson, Bernhard E., to Universal, Inc. Material handling elevator. 3,549,003, 12-22-70, Cl. 198-141.

Jacobson, Charles L., to Xerox Corporation. Zero-crossing detector for frequency modulated signals. 3,493,877, 2-3-70, Cl. 329-103.

Jacobson, Charles L., to Xerox Corporation. Limiter circuit. 3,546,486, 12-8-70, Cl. 307-264.

Jacobson, Charles L.; and Mack, Donald E., to Xerox Corporation. Frequency modulator circuit for generating a plurality of frequencies by the use of a unijunction transistor. 3,510,803, 5-5-70, Cl. 332-14.

Jacobson, Charles L.: *See—*
Stone, Roger B.; and Jacobson, Charles L.,3,505,471.

Jacobson, Donley P.: *See—*
Larsen, Raymond B.; and Jacobson, Donley P.,3,548,404.

Jacobson, Earl H., to Auburn Plastics, Inc. Apparatus for bonding a flexible plastic backing to a synthetic fiber textile. 3,518,148, 6-30-70, Cl. 156-380.

Jacobson, Elmer H., to Vancouver Plywood Company, and U.S. Plywood-Champion Papers Inc. Method and means for forming plural elongated strips of veneer into an endless ribbon. 3,490,974, 1-20-70, Cl. 156-166.

Jacobson, Eugene, to Sun Chemical Corporation. Bow making machine. 3,545,656, 12-8-70, Cl. 223-46.

Jacobson, Gordon: *See—*
Porter, George Z.; and Jacobson, Gordon,3,538,528.

Jacobson, Henning W., to Ethicon, Inc., mesne. Polymerization of cyclic carboxylic esters in the presence of a nonpolymerizable ester plasticizer. 3,498,957, 3-3-70, Cl. 260-78.3

Jacobson, Henry A. Combination stepladder and table. 3,494,446, 2-10-70, Cl. 182-28.

Jacobson, Howard C.; and Olson, Robert P. Magnetic collector for grinder. 3,510,072, 5-5-70, Cl. 241-73.

Jacobson, Howard W.: *See—*
Hicks, William T.; and Jacobson, Howard W.,3,493,338.

Jacobson, Norman: *See—*
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Jacobson, Norman; Brownawell, Darrell W.; and Kresge, Edward N., to Esso Research and Engineering Company. Lubricant containing ethylene-alpha-olefin polymer. 3,551,336, 12-29-70, Cl. 252-59.

Jacobson, Paul D.: *See—*
Hogue, Marcus P.; and Jacobson, Paul D.,3,530,723.

Jacobson, Ralph S., to Georgia-Pacific Corporation. Rotary drum dryer. 3,513,565, 5-26-70, Cl. 34-125.

Jacobson, Robert L.: *See—*
Spurlock, Burwell; and Jacobson, Robert L.,3,507,780.
Spurlock, Burwell; and Jacobson, Robert L.,3,507,781.

Jacobson, Rodney D., to Jacobson and Sons Construction Co., Inc. Bin construction. 3,523,619, 8-11-70, Cl. 214-16.

Jacobson, Sava W.: *See—*
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Jacobson, William P.: *See—*
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Jacobson, William P., to Anderson Bros. Mfg., Co. Package with tear strip. 3,515,334, 6-2-70, Cl. 229-51.

Jacobus, Dwight W.; and Callahan, Eugene N., to General Electric Company. Door closure device with time delay means. 3,548,444, 12-22-70, Cl. 16-78.

Jacobus, Edgar M. Swivel fitting. 3,510,155, 5-5-70, Cl. 285-98.

Jacoby, Breta Y. Patient guard during surgery. 3,530,515, 9-29-70, Cl. 5-319.

Jacoby, Charles E., to SI Handling Systems, Inc. Tow truck selector pin. 3,522,771, 8-4-70, Cl. 104-88.

Jacoby, Charles E.: *See—*
Oranczak, Ronald; Jacoby, Charles E.; and Lewis, Allen R.,3,538,854.

Jacoby, Frederick J.: *See—*
Earhart, Howard F.; Jacoby, Frederick J.; and Starck, Clemens B.,3,516,832.
Nadeau, Gale F.; Starck, Clemens B.; and Jacoby, Frederick J.,3,501,301.

Jacoby, George V., to RCA Corporation. Constant tension-constant speed drive by means of a tandem motor connection. 3,501,682, 3-17-70, Cl. 318-7.

Jacoby, George V., to RCA Corporation. Readback circuit for information storage systems. 3,516,066, 6-2-70, Cl. 340-174.1

Jacoby, George V.; and Kmiec, John C., to RCA Corporation. Synchronizing servosystem with memory means. 3,520,993, 7-21-70, Cl. 178-6.6

Jacoby, Gunter: *See—*
Gotz, Friederich; and Jacoby, Gunter,3,524,804.

Jacoby, Sidney J. Tank integral horn trumpet. 3,503,363, 3-31-70, Cl. 116-106.

Jacoby, William F., to American Machine & Foundry Company. Bicycle frame. 3,534,980, 10-20-70, Cl. 280-281.

Jacoby-Bender, Inc.: *See—*
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Leibowitz, William; DeLise, Frank; Gardel, Robert; and Gorsky, Egon, 3,530,616.

Jacovides, Georgios K., to United States of America, Army. Illuminated sunshade assembly. 3,496,347, 2-17-70, Cl. 240-2.

Jacquelin, Guy, to Societe d'Exploitation des Brevets Granofibre, mesne. Method of treating suspensions of fibres to form aggregates. 3,506,536, 4-14-70, Cl. 162-1.

Jacques, James Keith, to Albright & Wilson (Mfg.) Limited. Acyldiphosphonates. 3,525,782, 8-25-70, Cl. 260-932.

Jacques, James Keith, to Hooker Chemical Corporation. Fire retardant polyesters from acyldiphosphonic Acids and polyhalobicyclic diacids. 3,538,189, 11-3-70, Cl. 260-869.

Jacques, James Keith; and Owen, William John, to Electric Reduction Company of Canada, Ltd. Organic compositions containing oxidation retarders. 3,501,403, 3-17-70, Cl. 252-46.7

Jacques, James O., to International Business Machines Corporation. Digital control system with integral clamping. 3,495,074, 2-10-70, Cl. 235-151.1

Jacques, James O.; Kuckein, Paul A.; and Oswald, Richard K., to International Business Machines Corporation. Closed loop controller having digital integrator with variable gain. 3,513,302, 5-19-70, Cl. 235-151.1

Jacques, James O.; and Oswald, Richard K., to International Business Machines Corporation. Digital controller with alarm. 3,519,807, 7-7-70, Cl. 235-151.1

Jacquet, Yves: *See—*
Gillionnier, Julien L.; Jacquet, Yves; and Kamiski, Jean-Calude Pascal,3,525,034.

Jacquin, Humbert G.; and Galvan, Paul A., to United States of America, Navy. Fluid operated valve and nozzle arrangement. 3,520,479, 7-14-70, Cl. 239-265.23

Jacquot, Maurice: *See—*
Bonne, Roger; Jacquot, Maurice; and Fourre, Jacques,3,549,408.

Jacquot, Michel: *See—*
Bertin, Jean Henri; and Jacquot, Michel,3,493,070.

Jacubasch, Hans Dieter: *See—*
Gloor, Karl; Baach, Hans; Jacubasch, Hans Dieter; Stein, Rudolf; and Erhard, Dieter,3,533,152.

Jacubowiez, Isidore, to Societe Anonyme Heurtey. Device for setting in motion powdery materials forming a fluidized bed. 3,495,654, 2-17-70, Cl. 165-104.

Jacumin, Jimmy R. Woodworking method. 3,547,171, 12-15-70, Cl. 144-325.

Jacuzzi Bros., Incorporated: *See—*
Jacuzzi, Frank, 3,507,753.
Jacuzzi, Frank, 3,547,409.

Jacuzzi, Candido, to Jacuzzi Research Inc. Hydromassage apparatus. 3,534,730, 10-20-70, Cl. 128-66.

Jacuzzi, Frank, to Jacuzzi Bros., Incorporated. Water purifier of the condenser type. 3,507,753, 4-21-70, Cl. 202-191.

Jacuzzi, Frank, to Jacuzzi Bros. Incorporated. Assembly for producing detergent foam. 3,547,409, 12-15-70, Cl. 259-4.

Jacuzzi Research Inc.: *See—*
Jacuzzi, Candido, 3,534,730.
Jacuzzi, Roy A., 3,540,438.

Jacuzzi, Roy A., to Jacuzzi Research, Inc. Hydro-air jet head assembly. 3,540,438, 11-17-70, Cl. 128-66.

Jade Corporation, The: *See—*
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James, Albert L. Heated film transfer process and article produced thereby. 3,539,428, 11-10-70, Cl. 156-272.

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James, Daniel G., to Allied Chemical Corporation. Barrier coated nylon film. 3,514,367, 5-26-70, Cl. 161-165.
James, Daniel S.; and Witterholt, Vincent G., to Du Pont de Nemours, E. I., and Company. Hexaarylblimidazole-coumarin compositions. 3,533,797, 10-13-70, Cl. 96-90.
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James, Donald N., to Ball Brothers Research Corporation. Bandwidth reduction system for a magnetic recorder. 3,492,441, 1-27-70, Cl. 179-100.2
James, Donald N., to Ball Brothers Research Corporation. Video signal multiplexer for test signal generation. 3,531,587, 9-29-70, Cl. 178-6.
James, Earl Gordon; and Manning, Robert N., to Hercules Incorporated. Coated polypropylene film and laminates formed therefrom. 3,519,531, 7-7-70, Cl. 161-254.
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James, Ivanhoe John Penfound; Karwowski, Wieslaw Antoni; and Kent, David Ernest, to Electric & Musical Industries Limited. Circuit arrangements for colour television cameras. 3,509,272, 4-28-70, Cl. 178-5.4
James, John Bernard, to International Computers and Tabulators Limited. Information storage apparatus employing magnetic storage elements. 3,500,345, 3-10-70, Cl. 340-174.
James, John Brian, to Dexion Limited. Support based, panel attachment. 3,487,601, 1-6-70, Cl. 52-400.
James, John E. V. Pump for liquids. 3,507,583, 4-21-70, Cl. 417-389.
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James, Michael Joseph, to Micro & Precision Mouldings (Cheltenham) Limited. Ventilators. 3,509,812, 5-5-70, Cl. 98-121.
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James, Robert L., to Bendix Corporation, The. Digital integrator-synchronizer. 3,505,673, 4-7-70, Cl. 340-347.
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James, Robert L., to Bendix Corporation, The. Apparatus having infinite memory for synchronizing an input signal to the output of an analog integrator. 3,541,319, 11-17-70, Cl. 235-183.
James, Robert L.; and Friedman, Edward O., to Bendix Corporation, The. Voltage to frequency converter. 3,504,267, 3-31-70, Cl. 321-8.
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James, Robert L.; and Vargo, Donald P., to Bendix Corporation, The. Digital integrator-synchronizer having low noise susceptibility. 3,550,018, 12-22-70, Cl. 328-127.
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Jasberg, Peter M., to Bunker Hill Company. Anode cleaning machine. 3,501,795, 3-24-70, Cl. 15-77.

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Jaulmes, Eric, to Ateliers de la Motobecane, Societe Anonyme. Capacity-discharge electronic ignition apparatus for internal combustion engines. 3,517,655, 6-30-70, Cl. 123-148.

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Jenks, Herbert R., to Dura-Fiber, Inc. Laminated fiberglass diving board. 3,544,104, 12-1-70, Cl. 272-66.

Jenks, Richard H.: *See—*
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Jennings, James E.; and Kosowsky, Lester H., to United Aircraft Corporation. Tunable bandpass active filter. 3,532,908, 10-6-70, Cl. 307-295.

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Jennings, Lyston C.; and Spooner, Howard C., to General Signal Corporation. Hydraulic starting system and valves thereof. 3,491,795, 1-27-70, Cl. 137-609.

Jennings, Marvin D.; and Bettin, Leonard A., to International Harvester Company. Variable speed drive assembly. 3,513,714, 5-26-70, Cl. 74-198.

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Jennings, Reuel E.: *See—*
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Jennings, Thomas J.; and Voge, Hervey H., to Shell Oil Company. Catalytic hydrazine decomposition process using chromium containing catalyst. 3,503,212, 3-31-70, Cl. 60-219.

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Jenny, Hans: *See—*
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Jenny, Walter; Hari, Stefan; and Seitz, Karl, to Ciba Limited. Water-insoluble dyestuffs containing a/2-chloro- benzothiazole-6-azo group. 3,530,110, 9-22-70, Cl. 260-158.

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Jensch, Wolfgang; Groblinghoff, Hans-Georg; and Beckmann, Rolf, to Dynamit Nobel Aktingesellschaft. Manufacture of plasticizer-containing mat-surface polyvinyl butyraldehyde sheet material directly useable in the manufacture of laminated safety glass. 3,524,778, 8-18-70, Cl. 156-184.

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Jensen, Andrew O., to Xerox Corporation, mesne. Spiraled strip material having parallel grooves forming plurality of electron multiplier channels. 3,519,870, 7-7-70, Cl. 313-105.

Jensen, Andrew O.; and Pollock, David H., to Xerox Corporation, mesne. Thermionic converter having a low work function collector electrode. 3,551,727, 12-29-70, Cl. 313-346.

Jensen, Arne. Electrically controlled switch. 3,514,642, 5-26-70, Cl. 307-305.

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Jensen, Flemming Edvin, to Smidth, F. L., & Co. Rotary kiln having planetary cooling tubes. 3,512,764, 5-19-70, Cl. 263-32.

Jensen, Flemming Edwin, to Smidth, F. L., & Co. Combined conveying and distributing device. 3,523,682, 8-11-70, Cl. 263-33.

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Jensen, Harry L. Lawn edging arrangement. 3,545,127, 12-8-70, Cl. 47-33.

Jensen, Harry M. Drill depth and angle guide for hand drill. 3,550,481, 12-29-70, Cl. 77-55.

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Johnson, Albert Oscar, to Stedman Foundry and Machine Company, Incorporated. Disintegrator crushing member and support therefor. 3,503,561, 3-31-70, Cl. 241-188.

Johnson, Albert W., to Schlumberger Technology Corporation. Apparatus for selectively releasing cable- suspended well tools. 3,517,740, 6-30-70, Cl. 166-63.

Johnson, Alfred D., to Sylvania Electric Products, Inc. Cathode ray tube having independent front and rear displays. 3,526,800, 9-1-70, Cl. 313-92.

Johnson, Alfred H.; and McConnell, William R., to International Business Machines Corporation. Method of packaging a circuit module and joining same to a circuit substrate. 3,517,438, 6-30-70, Cl. 29-627.

Johnson, Alfred. Stringed musical instrument bridge with dual pickups. 3,539,700, 11-10-70, Cl. 84-1.16

Johnson, Allan M.; and Gilman, Richard F. Demineralizing process and apparatus. 3,515,664, 6-2-70, Cl. 204-306.

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Johnson, Arthur M., to Scientific Products Corporation. Line throwing device. 3,505,926, 4-14-70, Cl. 89-1.

Johnson, Arthur T., to GTI Corporation. Fixture for making glass-to-metal seals and method of making the same. 3,542,576, 11-24-70, Cl. 117-2.

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Johnson, Bruce K.; and Schettino, Anthony J., to Polaroid Corporation. Locking means for push button actuators. 3,550,513, 12-29-70, Cl. 95-11.

Johnson, Bruce K.; and Wolff, Otto E., to Polaroid Corporation. Photographic exposure control apparatus. 3,522,765, 8-4-70, Cl. 95-60.

Johnson, Bruce L., to Deere & Company. Constant pressure radial piston pump. 3,522,998, 8-4-70, Cl. 417-221.

Johnson, Bryan K.; and Smith, Frederick A., to British Nylon Spinners Limited. Method and apparatus for winding yarn. 3,488,938, 1-13-70, Cl. 57-98.

Johnson, Bush A. Tractor tire bead breaker. 3,537,501, 11-3-70, Cl. 157-1.17

Johnson, Calvin Keith; and Armbruster, David Ray, to CPC International Inc. Foundry compositions, cores and method of making same. 3,525,379, 8-25-70, Cl. 164-16.

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Johnson, Calvin K., to Minnesota Mining and Manufacturing Company. Latent curing epoxy compositions containing a crystalline polyphenate salt of a polyamine and 2, 4,4-trimethyl-2,4,7-trihydroxyflavan. 3,519,576, 7-7-70, Cl. 260-2.

Johnson, Calvin K., to Minnesota Mining and Manufacturing Company. Flavan salt. 3,520,905, 7-21-70, Cl. 260-345.2

Johnson, Calvin K., to Minnesota Mining and Manufacturing Company. Latent curing epoxy resin systems. 3,528,933, 9-15-70, Cl. 260-2.

Johnson, Carl A., to Owens-Illinois, Inc. Digestion of lignocellulosic materials with an organomercaptan and a hydrotrope. 3,490,990, 1-20-70, Cl. 162-76.

Johnson, Carl A., to Owens-Illinois, Inc. Treatment of lignocellulosic material with organomercaptan. 3,490,992, 1-20-70, Cl. 162-76.

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Johnson, Carl W., to Kimberly-Clark Corporation. Orbital tube cutting machine. 3,540,333, 11-17-70, Cl. 82-53.1

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Johnson, Clarence; and Stockwell, Berl L., to Tilt-A-Bed Corporation, The. Combination bed and lounge. 3,491,383, 1-27-70, Cl. 5-12.

Johnson, Clark E., Jr., to Vibrac Corporation. Oscillographic writing system. 3,510,878, 5-5-70, Cl. 346-1.

Johnson, Clark E., Jr. Magnetic susceptibility measuring means utilizing a bridge circuit with one arm having a pair of fixed coils and a pair of sample coils. 3,534,256, 10-13-70, Cl. 324-34.

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Johnson, David G., to Minnesota Mining and Manufacturing Company. Web cleaner. 3,546,733, 12-15-70, Cl. 15-308.

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Johnson, Edmond Eric. Vehicle suspension and coupling therefor. 3,517,718, 6-30-70, Cl. 152-27.

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Johnson, George H. Adjustable mercury switch. 3,515,830, 6-2-70, Cl. 200-152.

Johnson, George R., to Arpax Company, The. Mechanism for producing cushioning dunnage. 3,509,797, 5-5-70, Cl. 93-1.

Johnson, George R., to Arpax Company, The. Mechanism and method for producing cushioning dunnage. 3,509,798, 5-5-70, Cl. 93-1.

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Johnson, Harry W. Solution mixing and dispensing apparatus. 3,539,111, 11-10-70, Cl. 239-318.

Johnson, Henry J. Method of producing a multi-vitamin food enrichment composition. 3,536,494, 10-27-70, Cl. 99-11.

Johnson, Herbert G. Heat exchanger having plastic and metal components. 3,489,209, 1-13-70, Cl. 165-133.

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Johnson, Jerome L., to Honeywell Inc. Fluid logic circuit. 3,502,094, 3-24-70, Cl. 137-81.5

Johnson, Jerry E., to Ryan Instruments, Inc. Waterproof self-contained temperature recorder. 3,487,691, 1-6-70, Cl. 73-343.5

Johnson, Jesse R., to AVM Corporation, meane. Valve with sectional body structure and sealing means therefor. 3,506,239, 4-14-70, Cl. 251-310.

Johnson, John D.; Gibbs, Egbert M.; and Unwin, Neville, to Bush Boake Allen Limited. Process of preparing etheric acetals of 3,4-methylenedioxybenzaldehyde. 3,506,685, 4-14-70, Cl. 260-340.5

Johnson, John E.; and Flower, Archibald T., said Flower assor. to said Johnson. Manhole grate. 3,528,210, 9-15-70, Cl. 52-656.

Johnson, John H., to Monsanto Company. N-hydroxy nitrogenous copolymers. 3,488,329, 1-6-70, Cl. 260-78.5

Johnson, John H., to Clark Adams Corporation, meane. Concealed weld construction. 3,505,727, 4-14-70, Cl. 29-470.7

Johnson, John H., to Art Metal, Inc. Concealed weld construction. 3,531,147, 9-29-70, Cl. 287-189.36

Johnson, John L. Plural axes carnival ride. 3,506,260, 4-14-70, Cl. 272-37.

Johnson, John William; and Hone, Horace Tom, to United Aircraft Corporation. Method and apparatus for launching and retrieving boats and personnel. 3,540,677, 11-17-70, Cl. 244-2.

Johnson, John W., to Johnson Associates Industries Corporation. Air conditioning unit. 3,500,657, 3-17-70, Cl. 62-428.

Johnson, Joseph C.: *See—*
Eldred, John W.; Legg, James B.; Hull, Jerry L.; and Johnson, Joseph C.,3,529,948.

Johnson, Karl R.; Schmidt, Thomas R.; and Cooper, Gerald M., to United States of America, Army. Freeze-vacuum-dehydrated fried potato cakes. 3,489,575, 1-13-70, Cl. 99-207.

Johnson, Keith Liddell, to Swift & Company. Production of nonionic low-foaming emulsifiers. 3,502,713, 3-24-70, Cl. 260-477.

Johnson, Keith L., to Swift & Company. Liquid synthetic detergent. 3,549,544, 12-22-70, Cl. 252-152.

Johnson, Keith M.: *See—*
Pickering, Thomas E.; and Johnson, Keith M.,3,500,378.

Johnson, Keith O.: *See—*
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Johnson, Keith O., to Gauss Electrophysics, Inc. Video playback assembly wherein the record disc has optical recordings on both sides. 3,518,442, 6-30-70, Cl. 250-219.

Johnson, Keith O.; and Verrow, Donald J., to Gauss Electrophysics, Inc. Movable support means. 3,499,589, 3-10-70, Cl. 226-97.

Johnson, Kenneth L. Method of making prevailing torque locknuts. 3,496,582, 2-24-70, Cl. 10-86.

Johnson, Kenneth M., to Stanley Works, The. Cafe traverse rod glide ring. 3,521,318, 7-21-70, Cl. 16-93.

Johnson, Kenneth R.; and Lense, Robert F., to Riegel Paper Corporation. Method and machine for forming and filling bags. 3,545,166, 12-8-70, Cl. 53-29.

Johnson, Kent N.; and Johnstone, Bradford, to Pullman Incorporated. Hopper vehicle construction. 3,524,414, 8-18-70, Cl. 105-404.

Johnson, Lambert L.: *See—*
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Johnson, Lawrence A.: *See—*
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Johnson, Lee D., to Johnson Controls, Inc. Electronic oscillator switch. 3,549,905, 12-22-70, Cl. 307-252.

Johnson, Lee R. Restraining device. 3,528,215, 9-15-70, Cl. 54-24.

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Geusic, Joseph E.; Johnson, Leo F.; and Van Uitert, Le Grand G.,3,500,232.

Johnson, Leonard A.; and Hervig, Harold G., to Minnesota Mining and Manufacturing Company. High voltage cable termination. 3,542,942, 11-24-70, Cl. 174-73.

Johnson, Leslie A., to Westinghouse Electric Corporation. Washing machine clutch mechanism. 3,509,743, 5-5-70, Cl. 68-23.7

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Johnson, Lloyd W., to Michigan Oven Company. Fluid cushion turning rolls for supporting and guiding strip material. 3,498,515, 3-3-70, Cl. 226-97.

Johnson, Lowell C., to Johnson Gage Company, The. Tape gage for low cutting edge and diameter. 3,491,452, 1-27-70, Cl. 33-201.

Johnson, Lowell C., to Johnson Gage Company, The. Gage setting device. 3,545,088, 12-8-70, Cl. 33-174.

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Johnson, Marvin F. L.; Williams, Norman J.; and Sanford, Robert A., to Sinclair Research, Inc. Preparation of silica-alumina, titania-alumina, and phosphorous oxide-alumina catalysts. 3,502,595, 3-24-70, Cl. 252-437.

Johnson, Marvin M., to Phillips Petroleum Company. Process for removal of hydrogenation catalyst from hydrogenated polymers. 3,531,448, 9-29-70, Cl. 260-85.1

Johnson, Marvin M.; and Stapp, Paul R., to Phillips Petroleum Company. Metal working operations and lubricants. 3,546,118, 12-8-70, Cl. 252-54.

Johnson, Marvin W., to General Motors Corporation. Engine lubrication. 3,532,443, 10-6-70, Cl. 417-367.

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Johnson, Melvin L., to United States of America, Atomic Energy Commission. Nuclear reactor fuel element hold-down and tightening mechanism. 3,549,491, 12-22-70, Cl. 176-87.

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Johnson, Norman S.: *See—*
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Johnson, Norman S.; Gley, Paul R.; and Bross, Warren C., to Rex Chainbelt Inc. Clip-in fastener receptacle. 3,504,875, 4-7-70, Cl. 248-27.

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Johnson, Olin B., to Ford Motor Company. Method for electrodeposition coating including a preimmersion deposition step. 3,492,213, 1-27-70, Cl. 204-181.

Johnson, Orlen D.: *See—*
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Johnson, Otto E., to International Harvester Company. Flexible tandem implement. 3,516,499, 6-23-70, Cl. 172-261.

Johnson, Otto E.: *See—*
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Johnson, Paul C., to Berkley & Company, Inc. Rod handle material. 3,500,572, 3-17-70, Cl. 43-23.

Johnson, Paul H., to Phillips Petroleum Company. Electrothermic fluidized bed process. 3,499,947, 3-10-70, Cl. 260-680.

Johnson, Paul M., Jr., to Western Electric Company, Incorporated. Electrical termination for a tantalum nitride film. 3,495,959, 2-17-70, Cl. 29-195.

Johnson, Peter D., to General Electric Company. Efficient incandescent light source including light-enhancing metallic iodide vapors. 3,497,754, 2-24-70, Cl. 313-222.

Johnson, Peter D., to General Electric Company. Mercury-metallic halide vapor lamp with regenerative cycle. 3,521,110, 7-21-70, Cl. 313-227.

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Johnson, Philip P.; and Edwards, William J., to Whirlpool Corporation. Closure having an integral plastic handle. 3,529,744, 9-22-70, Cl. 220-94.

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Johnson, Ralph B., Jr.; and Goodwin, Joe E., to Sentinel Distributors, Inc. Electronic actuator for an engine protective system. 3,524,110, 8-11-70, Cl. 317-148.5

Johnson, Ralph D.; Walters, Roger E.; and Hamann, John A., to United States of America, Agriculture. Rigid turkey shackle and positioning device. 3,518,717, 7-7-70, Cl. 17-11.

Johnson, Ralph E., to Singer Company, The. Presser mechanism for sewing machines. 3,494,314, 2-10-70, Cl. 112-238.

Johnson, Ralph R. Cover blade for rotary mower. 3,504,485, 4-7-70, Cl. 56-295.

Johnson, Ralph, to United States of America, Air Force. Automatic flow control valve assembly. 3,529,623, 9-22-70, Cl. 137-497.

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Johnson, Richard A. Two-in-one stringed electronic instrument with string pickup and tone generator. 3,539,699, 11-10-70, Cl. 84-1.16

Johnson, Richard B.: *See—*
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Johnson, Richard H., to Upjohn Company, The. Methylcellulose and polyalkylene glycol coating of solid medicinal dosage forms. 3,539,380, 11-10-70, Cl. 117-100.

Johnson, Richard Kent. Gauge length scriber. 3,530,588, 9-29-70, Cl. 33-21.

Johnson, Richard T., to Stein, Sam, Associates, Inc. Breading machine. 3,547,075, 12-15-70, Cl. 118-816.

Johnson, Robert A., to Collins Radio Company. General stopband mechanical disc filter section employing multi-mode discs. 3,488,608, 1-6-70, Cl. 333-71.

Johnson, Robert A, to Collins Radio Company. Mechanical filters employing multimode resonators. 3,516,029, 6-2-70, Cl. 333-71.

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Johnson, Robert C., to Reynolds Metals Company. Building construction and method. 3,495,363, 2-17-70, Cl. 52-60.

Johnson, Robert C., to Reynolds Metals Company. Floor construction for an animal enclosure and method of making same. 3,528,391, 9-15-70, Cl. 119-28.

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Johnson, Robert H., to General Electric Company. Lubrication and cooling of high speed gears. 3,515,011, 6-2-70, Cl. 74-467.

Johnson, Robert H.; and Herzog, Josef, to General Electric Company. Device for the prepatterned control of flow distribution in fluid flow experiencing a change in area and/or direction. 3,519,024, 7-7-70, Cl. 138-41.

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Johnson, Robert L., to Johnson, Mercedes M. Quick-release grinding machine coupling and improved abrading device for use therewith. 3,537,832, 11-3-70, Cl. 51-376.

Johnson, Robert L., to Fats and Proteins Research Foundation, Inc. Additive for concrete, mortar and other cementitious mixtures. 3,547,665, 12-15-70, Cl. 106-95.

Johnson, Robert L.; and Ralston, Edward L., to International Business Machines Corporation. Control system for solids slicing. 3,508,591, 4-28-70, Cl. 146-222.
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Johnson, Robert M. Method of producing a multi-colored metal design on an arcuate metal base. 3,503,815, 3-31-70, Cl. 156-6.

Johnson, Robert M., to Tektronix, Inc. Multiple sweep display. 3,551,733, 12-29-70, Cl. 315-22.

Johnson, Robert R.; and Alford, Ezra Dempsey, to Brown & Williamson Tobacco Corporation. Tobacco product including releasable flavorant. 3,545,450, 12-8-70, Cl. 131-17.

Johnson, Robert R.; and Alford, Ezra Dempsey, to Brown & Williamson Tobacco Corporation. Tobacco product including releasable flavorant. 3,545,452, 12-8-70, Cl. 131-17.

Johnson, Robert R.; Roggenstein, Edwin O.; and Viswanathan, Nallicheri T., to Burroughs Corporation. Stylus with pressure responsive transducer. 3,528,295, 9-15-70, Cl. 73-432.

Johnson, Robert T.: *See—*
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Johnson, Robert T., to Brunswick Corporation. Engine exhaust systems. 3,494,334, 2-10-70, Cl. 123-65.

Johnson, Robert T.; and Brushaber, Larry, to Brown Machine Company of Michigan, Inc. Method for punching an opening in a synthetic plastic container section blank and forming ribs thereon. 3,532,785, 10-6-70, Cl. 264-155.

Johnson, Robert W., to International Harvester Company. Roller height adjustment for endless track tractors. 3,532,397, 10-6-70, Cl. 305-11.
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Johnson, Ronald H.; Miller, Carlton S.; and Parsons, Frederick G., to Technical Operations, Incorporated. Microdensitometric apparatus for simultaneously examining a plurality of record image areas. 3,520,624, 7-14-70, Cl. 356-203.

Johnson, Ronald V., to Hoerner Waldorf Corporation. Container wall lock construction. 3,529,762, 9-22-70, Cl. 229-34.

Johnson, Ronald V., to Hoerner Waldorf Corporation. Separable container. 3,531,045, 9-29-70, Cl. 229-51.

Johnson, Rowland E.; Patterson, Robert J.; and Tilton, Andre E., to Texas Instruments, Incorporated. Amorphous glass compositions. 3,505,522, 4-7-70, Cl. 250-83.

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Johnson, Roy E.; Loeffler, Joseph F.; and Urban, Donald F., to General Motors Corporation. Headlamp door assembly. 3,504,168, 3-31-70, Cl. 240-7.1

Johnson, Roy. Nail holder-dual hammer. 3,543,821, 12-1-70, Cl. 145-30.

Johnson, Russell R.; and Kimberlin, Charles N., Jr., to Esso Research and Engineering Company. Process for the production of hydrogen from petroleum coke. 3,542,532, 11-24-70, Cl. 48-202.

Johnson, Russell W., 50% to Enright, Clarence R. Apparatus for producing tile panels. 3,490,096, 1-20-70, Cl. 18-5.

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Johnson, Sam H., Jr.; and Vander Woude, Jack C., to Eastman Kodak Company. Process for separating high-boilers of the Oxo process. 3,501,537, 3-17-70, Cl. 260-643.

Johnson, Sarah J.; Jaslow, Saul; and Vaughn, Howard, to Gutterman, Grace, and Gutterman, Siegfried R. Automatic crib rocker. 3,541,618, 11-24-70, Cl. 5-109.

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Johnson, Stanley E. Radiant heat cable support. 3,524,922, 8-18-70, Cl. 174-138.

Johnson, Stewart C., to Westinghouse Electric Corporation. Cooking apparatus. 3,493,708, 2-3-70, Cl. 219-10.55

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Johnson, Thomas B., to Plasteel Products Corporation. Sheet metal wall panel with compressible edge seal. 3,514,915, 6-2-70, Cl. 52-393.

Johnson, Thomas B. Self-locking fastener. 3,541,918, 11-24-70, Cl. 85-46.

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Johnson, Thomas M. Aeration of liquids. 3,493,216, 2-3-70, Cl. 261-36.

Johnson, Thomas M. Gear lubricating means. 3,495,471, 2-17-70, Cl. 74-467.

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Johnson, Virgil E., Jr.; Scherer, John O., Jr.; Miller, Eugene R., Jr.; and Blaes, Viggo A., to Hydronautics, Inc. Stable ocean platform. 3,500,783, 3-17-70, Cl. 114-0.5

Johnson, Waldo O., to Georgia-Pacific Corporation, mesne. Balance means and sash assembly. 3,500,586, 3-17-70, Cl. 49-431.

Johnson, Waldo O., to Georgia-Pacific Corporation. Replacement door and frame unit. 3,501,866, 3-24-70, Cl. 49-380.

Johnson, Wallace C., to Areos Corporation. Electric arc overlay welding. 3,493,713, 2-3-70, Cl. 219-76.

Johnson, Wallace C., to Arcos Corporation. Electric welding backing. 3,525,844, 8-25-70, Cl. 219-73.

Johnson, Wallace M. L. Protective barrier for automobiles. 3,534,998, 10-20-70, Cl. 296-24.

Johnson, Walter E., to Sonoco Products Company. Pallet. 3,499,397, 3-10-70, Cl. 108-51.

Johnson, Walter H., Jr.; and Pritchett, William C., to Atlantic Richfield Company. Radioactive borehole logging method and apparatus whereby elements of interest are determined by generating gamma rays having a predetermined critical energy such that they are resonantly scattered by said elements. 3,515,871, 6-2-70, Cl. 250-71.5

Johnson, Walter H. Dice shaker. 3,508,755, 4-28-70, Cl. 273-145.

Johnson, Walter, Jr., to GAF Corporation. Plate for plate and frame filter presses. 3,497,065, 2-24-70, Cl. 210-231.

Johnson, Wendell C., Jr., to North American Rockwell Corporation. Solder reflowing device. 3,528,437, 9-15-70, Cl. 134-107.

Johnson, Wesley Grant. Suction cleaning atachment for dental prophylaxis angles. 3,512,258, 5-19-70, Cl. 32-31.

Johnson, William E., to Owens-Illinois, Inc. Low impedance pulse generator. 3,513,327, 5-19-70, Cl. 307-89.

Johnson, William F., to Superior Continental Corporation. Encapsulated electronic components and method of making same. 3,517,111, 6-23-70, Cl. 174-52.

Johnson, William G., to Du Pont de Nemours, E. I., and Company. Evaporative cooling of polymer composition. 3,491,177, 1-20-70, Cl. 264-143.

Johnson, William H., to Tenneco Inc., mesne. Uncoiler. 3,512,728, 5-19-70, Cl. 242-78.6

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Johnson, William M.; Martin, Harold E.; McLaughlin, Thomas D.; and Schauss, Edward P., to Optics Technology, Inc. Laser apparatus and method of aligning same. 3,533,012, 10-6-70, Cl. 331-94.5

Johnson, William R.; Osmalov, Jerome S.; and Thomson, Richard N., to Morris, Philip, Incorporated. Smoking product having microreticulated filter. 3,528,433, 9-15-70, Cl. 131-10.5

Johnson, William T. M. Automatic and self-powered fire extinguishing device. 3,519,081, 7-7-70, Cl. 169-28.

Johnson, William Z. Multiple stage direct and cross-coupled amplifier. 3,538,447, 11-3-70, Cl. 330-15.

Johnson, William; Lloyd, Thomas; McMullen, Patrick; Moreton, Roger; and Watt, William, to National Research Development Corporation. Manufacture of carbon cloth from polymeric fibre material. 3,541,582, 11-17-70, Cl. 23-209.1

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Johnston, Bevan H., to Stranberg-Carlson Corporation. Powder dispenser and canister. 3,526,341, 9-1-70, Cl. 222-167.

Johnston, Carey W. Tire pressure differential sensing and indicating device. 3,521,231, 7-21-70, Cl. 340-58.

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Johnston, Clifford V., to Diamond Power Specialty Corporation. Nutating drive. 3,517,564, 6-30-70, Cl. 74-89.17

Johnston, David Bruce. Rotating restaurant. 3,491,496, 1-27-70, Cl. 52-65.

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Johnston, David L.; Nelson, Paul E.; and Hoffmann, Gordon F., to International Business Machines Corporation. Calibration error detection and correction in a document reading system. 3,536,950, 10-27-70, Cl. 315-18.

Johnston, David L.; Siverling, Michael M.; and Wilson, Melvin G., to International Business Machines Corporation. Yoke di/dt monitoring cathode ray tube protection. 3,501,670, 3-17-70, Cl. 315-20.

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Johnston, Douglas. Liquid flow control structure. 3,518,953, 7-7-70, Cl. 111-7.

Johnston, Douglas, to Continental Oil Company. Valved ejector. 3,521,819, 7-28-70, Cl. 239-99.

Johnston, Edward J.; and Macha, Frank J., Jr., to International Harvester Company. Flick bar mechanism for harvesting apparatus. 3,513,647, 5-26-70, Cl. 56-23.

Johnston, Edward J.; Patterson, N. Donald; and Macha, Frank J., Jr., to International Harvester Company. Side delivery rake. 3,529,411, 9-22-70, Cl. 56-377.

Johnston, Edward J.; and Walker, John A., to International Harvester Company. Combination harvesting and threshing machine. 3,513,646, 5-26-70, Cl. 56-20.

Johnston, Everett A.; Howard, David F.; Bollenbacher, Hans; and Carl, Henry A., to General Electric Company. Bifurcated fan duct thrust reverser. 3,541,794, 11-24-70, Cl. 60-226.

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Johnston, Herbert L., to Plasti-Music Company, Inc. Music holding lyre for a musical instrument. 3,539,143, 11-10-70, Cl. 248-443.

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Johnston, Howard T., Jr.: *See—*
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Johnston, Howard, to Dow Chemical Company, The. Trihalo- and tetrahalopyrazine-1-oxides. 3,509,144, 4-28-70, Cl. 260-250.

Johnston, Howard, to Dow Chemical Company, The. Bis- and tris-(thio-,sulfinyl- and sulfonyl) pyridines. 3,549,647, 12-22-70, Cl. 260-294.8
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Johnston, James David, to Pfizer, Chas., & Co., Inc. Process for producing quinoxaline-di-N-oxides. 3,493,572, 2-3-70, Cl. 260-250.

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Johnston, James J., to Western Electric Company, Incorporated. Methods of and systems for detecting and analyzing whether a generated pulse possesses desired characteristics. 3,535,620, 10-20-70, Cl. 324-28.

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Johnston, James Stewart, to Rosemount Engineering Company Limited. Digitizers for fluid logic systems. 3,521,670, 7-28-70, Cl. 137-552.

Johnston, John A. Baseball pitching training aid. 3,497,218, 2-24-70, Cl. 273-26.

Johnston, John A., to Cargill, Incorporated. Method and apparatus for analyzing a particulate material. 3,545,281, 12-8-70, Cl. 73-432.

Johnston, Joseph L., deceased (by Johnston, Annabelle, executrix); and Hunnicutt, Wayne E., said Hunnicutt assor to Applied Power Industries, Inc. Hydraulic actuator and method. 3,540,213, 11-17-70, Cl. 60-1.

Johnston, Kenneth H., to Associated Millwrights, Inc. Power curve. 3,507,379, 4-21-70, Cl. 198-28.

Johnston, Kenneth H., to Associated Millwrights, Inc. Guide rail system. 3,527,336, 9-8-70, Cl. 198-137.

Johnston, Kenneth L.; and Fontana, Dominic, to Phillips Petroleum Company. Sweetening of JP-4 jet fuel with an alkali metal plumbite, phthalocyanine compound and elemental sulfur. 3,525,683, 8-25-70, Cl. 208-199.

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Johnston, Lawrence H.; and Pierce, William B., to United States of America, Atomic Energy Commission. Position monitoring system for a pulse-modulated charged particle beam. 3,496,463, 2-17-70, Cl. 324-71.

Johnston, Lawton L., to Graniteville Company. Cloth treating apparatus. 3,509,745, 5-5-70, Cl. 68-175.

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Johnston, Lowell B., to Dymedia Incorporated. Instructional device. 3,538,623, 11-10-70, Cl. 35-9.

Johnston, Mack S. Portable beer siphon device. 3,494,514, 2-10-70, Cl. 222-400.8

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Johnston, Robert B.; Porter, Charles R.; and Wilson, Dennis W., to General Electric Company. Method and apparatus for fission-fragment irradiation. 3,529,157, 9-15-70, Cl. 250-83.

Johnston, Robert D., to Belcan Corporation. Compound engine. 3,498,053, 3-3-70, Cl. 60-13.

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Joly, Robert; Warnant, Julien; and Farcilli, Andre, to Roussel-UCLAF. Novel $\Delta^{4,9}$-pregnadiene. 3,547,959, 12-15-70, Cl. 260-397.3

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Jones, Griffin D.; Geyer, Gerald R.; and Hatch, Melvin J., to Dow Chemical Company, The. Cationic 2-methylene-1,3-butadiene polymers. 3,544,532, 12-1-70, Cl. 260-79.7
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Jones, Handel H.; and Miller, Kemp, to International Telephone and Telegraph Corporation. Electroless tin plating on electroless nickel. 3,498,823, 3-3-70, Cl. 117-71.
Jones, Harold B., to Leitner Equipment Company. Hot food table. 3,503,378, 3-31-70, Cl. 126-33.
Jones, Harold E.; Karner, Friedrich A.; and Millham, Ernest H., to International Business Machines Corporation. Programmable electronic circuit testing apparatus having plural multi-function test condition generating circuits. 3,492,572, 1-27-70, Cl. 324-73.
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Jones, Harold O., to Air Reduction Company, Incorporated. Apparatus and method for a closed vessel welding operation. 3,508,107, 4-21-70, Cl. 314-73.
Jones, Harry S., to Chrom-Tronics, Inc. Enhanced jewel stones and method of forming same. 3,490,250, 1-20-70, Cl. 63-32.
Jones, Harry S. Reflective optical systems. 3,514,187, 5-26-70, Cl. 350-200.
Jones, Harry S., to Chrom-Tronics, Inc. Relief photograph camera construction. 3,521,947, 7-28-70, Cl. 352-58.
Jones, Harry S. Electromagnetic device. 3,522,726, 8-4-70, Cl. 73-117.4
Jones, Harry S. Doublet gem construction. 3,528,261, 9-15-70, Cl. 63-32.
Jones, Harry S., to Chrom-Tronics, Inc. Conversion printing method for relief photographs. 3,528,736, 9-15-70, Cl. 355-22.
Jones, Harry S. Relief data converter. 3,535,993,. 10-27-70, Cl. 95-18.
Jones, Harry S., to Chrom-Tronics, Inc. Photosensitive lenticulated film with separable multi-element lens overlay. 3,542,556, 11-24-70, Cl. 96-81.
Jones, Henry William; and Meneley, William Edward, to Singer Company, The. Magnetic head mount apparatus. 3,489,381, 1-13-70, Cl. 248-204.
Jones, Hicks. Trailer sway control device. 3,497,241, 2-24-70, Cl. 280-446.
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Jones, Howard S., Jr., to United States of America, Army. Projectile with an incorporated dielectric- loaded cavity antenna. 3,518,685, 6-30-70, Cl. 343-708.
Jones, Howard S., Jr., to United States of America, Army. Slotted waveguide antenna array providing dual frequency operation. 3,524,189, 8-11-70, Cl. 343-771.
Jones, Howard S., Jr.; and Mix, Vernon L., to United States of America, Army. Radome antenna. 3,509,571, 4-28-70, Cl. 343-771.
Jones, Howard T., to General Electric Company. Current sensing device. 3,523,238, 8-4-70, Cl. 323-6.
Jones, Howard W., to Regan Forge & Engineering Co. Load balancing full opening and rotating blowout preventer apparatus. 3,492,007, 1-27-70, Cl. 277-31.
Jones, Hugh F.; and Creese, Earl D., to Federal-Mogul Corporation. Apparatus for plating articles. 3,522,165, 7-28-70, Cl. 204-198.
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Jones, Hugh L., to Xerox Corporation. Double-action rotary solenoid drive mechanism. 3,509,780, 5-5-70, Cl. 74-107.
Jones, Hugh L.; and Stokes, David R., to Xerox Corporation. Belt tracking system. 3,500,694, 3-17-70, Cl. 74-241.
Jones, Isaac Palmer; Duffee, Homer W.; McCartan, Daniel A.; and Reid, John W. Film faced fibrous body and apparatus for supporting the same. 3,513,613, 5-26-70, Cl. 52-222.
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Jones, James H.; and Cragoe, Edward J., Jr., to Merck & Co., Inc. 3-Hydroxy- and 3-mercaptopyrazinamidoguanidines, the corresponding ethers and thioethers and processes for their preparation. 3,507,865, 4-21-70, Cl. 260-250.
Jones, James H.; and Cragoe, Edward J., Jr., to Merck & Co., Inc. 1H-Imidazo [4,5-b] pyrazin-2-one and processes for their preparation. 3,507,866, 4-21-70, Cl. 260-250.
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Jones, James R., to Wurlitzer Company, The. Storage and retrieval control apparatus and method. 3,511,351, 5-12-70, Cl. 194-15.
Jones, James S. Pressure filler valves and vapor venting valves. 3,526,256, 9-1-70, Cl. 141-207.
Jones, James W., to Ampex Corporation. Accurate once-around pulse generating system. 3,491,247, 1-20-70, Cl. 250-231.
Jones, James W., to Compac Engineering, Inc. Magnetic mercury switch. 3,497,837, 2-24-70, Cl. 335-51.
Jones, James W., to International Telephone and Telegraph Corporation. Adaptive speech pattern recognition system. 3,509,280, 4-28-70, Cl. 179-1.
Jones, James W., to International Telephone and Telegraph Corporation. Visual pattern recognition system. 3,517,386, 6-23-70, Cl. 340-146.3

Jones, James W., to Ampex Corporation. Phase discriminator. 3,521,084, 721-70, Cl. 307-232.

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Jones, John E.; and Rahenkamp, Robert A., to International Business Machines Corporation. Composing apparatus with table lookup mode. 3,512,132, 5-12-70, Cl. 340-172.5

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Jones, John Leslie, Sr. Multiple ply sanitary napkin with regenerated cellulose sponge. 3,512,530, 5-19-70, Cl. 128-290.

Jones, John Leslie, Sr. Menstrual napkin. 3,532,097, 10-6-70, Cl. 128-290.

Jones, John Leslie, Sr. Tampon applicator impedance. 3,534,737, 10-20-70, Cl. 128-263.

Jones, John Leslie, Sr. Tampon applicator. 3,543,754, 12-1-70, Cl. 128-263.

Jones, John Leslie, to Kimberly-Clark Corporation. Integral tampon shield. 3,499,448, 3-10-70, Cl. 128-285.

Jones, John Leslie, to Kimberly-Clark Corporation. Tampon. 3,520,302, 7-14-70, Cl. 128-285.

Jones, John L.; and Cirillo, Robert J., to National Cash Register Company, The. Optical information display system. 3,522,367, 7-28-70, Cl. 178-5.4

Jones, John L.; and Rubino, Andrew M., to Armour Pharmaceutical Company. Method of making alcohol-soluble complexes of aluminum. 3,507,896, 4-21-70, Cl. 260-448.

Jones, John L.; and Rubino, Andrew M., to Armour Pharmaceutical Company. Method of making alcohol-soluble complexes of aluminum. 3,520,911, 7-21-70, Cl. 260-448.

Jones, John L.; and Rubino, Andrew M., to Armour Pharmaceutical Company. Method of making alcohol-soluble complexes of aluminum. 3,523,130, 8-4-70, Cl. 260-448.

Jones, John M., Jr., to General Tool Company. Method of processing shrimp and related shellfish. 3,528,125, 9-15-70, Cl. 17-48.

Jones, John Paul, Jr. Water ski towline pay-out and retrieval apparatus. 3,494,570, 2-10-70, Cl. 242-86.5

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Jones, John Robert; and Priestley, Leslie, to British Petroleum Company Limited, The. Dimerisation catalyst. 3,505,425, 4-7-70, Cl. 260-683.15

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Jones, Joseph R. Microfilming system. 3,517,996, 6-30-70, Cl. 355-69.

Jones, Judson O. Portable apparatus for cleaning and partially drying carpets. 3,496,592, 2-24-70, Cl. 15-321.

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Jones, Kenneth James; and Baker, Alfred Dickens, to Lucas, Joseph, (Industries) Limited. Rear view mirror having resilient connector. 3,515,365, 6-2-70, Cl. 248-481.

Jones, Kenneth W. Floating combs for scrap stripping device. 3,503,309, 3-31-70, Cl. 93-36.

Jones, Larry A.; and Goyer, Ronald B., to RCA Corporation. Magnetic 'pen' for a graphic tablet. 3,532,817, 10-6-70, Cl. 178-18.

Jones, Lee S.: *See—*
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Jones, Leonard Max: *See—*
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Jones, Leonidas J.; Rankin, Richard W.; and Rivest, Everett L., to General Electric Company. Electronic system for accepting and processing responses to questions presented to students. 3,500,559, 3-17-70, Cl. 35-48.

Jones, Les G. Under-floor electrical construction for a building. 3,549,781, 12-22-70, Cl. 174-49.

Jones, Louis R., Jr., to Leeds & Northrup Company. Expendable immersion thermocouple assembly and compensating circuit. 3,501,957, 3-24-70, Cl. 73-359.

Jones, Louis R.; Mergner, George C.; and McAdam, Will, to Leeds & Northrup Company. Tympanic membrane thermometer. 3,507,153, 4-21-70, Cl. 73-359.

Jones, Lowell L. Trip device having automatic conductor and terminal gaging characteristics for terminal applying press. 3,492,846, 2-3-70, Cl. 72-15.

Jones, Lowery K., Jr.; and Turner, James D., to National Cash Register Company, The. Switching means employing unidirectional signal translating device. 3,539,832, 11-10-70, Cl. 307-246.

Jones, Malcolm D., to Kelsey-Hayes Company. Electrical rotational speed sensing device. 3,500,091, 3-10-70, Cl. 310-168.

Jones, Malcolm D., to Kelsey-Hayes Company. Permanent magnet inductor generator for vehicle wheel speed sensor. 3,515,920, 6-2-70, Cl. 310-168.

Jones, Malcolm D.; and Atkins, Thomas M., to Kelsey-Hayes Company. Sensor construction. 3,541,368, 11-17-70, Cl. 310-168.

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Jones, Malcolm S., Jr.; and Conner, William J., to Aerojet-General Corporation. Monolithic electrodes for MHD generators. 3,549,914, 12-22-70, Cl. 310-11.

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Jones, Marvin R.; and Baugh, Benton F., to Cameron Iron Works, Inc. Device for sensing the product of the density and the square of the rate of circulation of a fluid. 3,541,854, 11-24-70, Cl. 73-228.

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Jones, Michael Weston; and Hardwick, John Gordon, to Imperial Metal Industries (Kynoch) Limited. Structures. 3,544,022, 12-1-70, Cl. 220-23.4

Jones, Michael William; Taylor, Brian; and Taylor, Michael David, to International Nickel Company, Inc., The. Drawing ruthenium and alloys thereof to wire. 3,528,862, 9-15-70, Cl. 148-11.5

Jones, Morton E., to Texas Instruments, Incorporated. Color display screen employing two layers of phosphors, particles in the inner layer being small with respect to those in the outer layer and discontinuous in coverage. 3,517,243, 6-23-70, Cl. 313-92.

Jones, Morton E.; and Clingman, William H., Jr., to Texas Instruments, Incorporated. Color display system employing a striped penetration type CRT. 3,522,370, 7-28-70, Cl. 178-5.4

Jones, Neville Murray, to Monsanto Chemical Limited. Diesel fuel additive. 3,493,354, 2-3-70, Cl. 44-57.

Jones, Neville Rhys, to Hawker Siddeley Dynamics Limited. Method of transfer coating articles with layer of flame-sprayed ceramic material. 3,547,720, 12-15-70, Cl. 156-82.

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Jones, Otis V., Jr., to Acro Feed Industries, Inc. Stock feeding apparatus with chain device. 3,527,126, 9-8-70, Cl. 82-2.5

Jones, Paul; and Wold, Robert Allan, to Raychem Corporation. Bulkhead feedthrough. 3,548,079, 12-15-70, Cl. 174-153.

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Jones, Peter David; and Cantrill, Keith Ian, to Lucas, Joseph, (Industries) Limited. Dialyzate concentration control in artificial kidney machines. 3,490,591, 1-20-70, Cl. 210-85.

Jones, Peter Leslie; and Griffith, John Tudor, to Electricity Council, The. Door operating mechanisms. 3,533,188, 10-13-70, Cl. 49-360.

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Jones, Peter Ronald Wright. Rolling loop film-transport mechanism. 3,494,524, 2-10-70, Cl. 226-4.

Jones, Price D.; and Ploeckelmann, Sidney W., to Swiss American Precision Imports, Inc. Tweezers. 3,496,807, 2-24-70, Cl. 81-43.

Jones, R. A., and Company, Incorporated: *See—*
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Jones, Ralph Bernard; and Oakley, Thurman B., to Textile Metals & Plastics, Inc. Method of handling hosiery. 3,500,779, 3-17-70, Cl. 112-121.15

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Jones, Ralph S., Sr. Fretted instrument sounding board process and product. 3,494,241, 2-10-70, Cl. 84-307.

Jones, Raymond R., to Western Microwave Laboratories Inc. Magnetically tunable comb line bandpass filter. 3,539,953, 11-10-70, Cl. 333-73.

Jones, Raymond R.; and Kempic, Joseph A., to Westinghouse Electric Corporation. Microwave polarization switch. 3,500,460, 3-10-70, Cl. 333-21.

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Jones, Richard F., to Agonic Engineering, Inc.Exhaust valve for diver's helmet. 3,547,146, 12-15-70, Cl. 137-512.

Jones, Richard H.; and Bittmann, Eric E., to Burroughs Corporation. Magnetic memory apparatus. 3,496,555, 2-17-70, Cl. 340-174.

Jones, Richard J., to United States of America, Navy. High pressure sighting lens with relief port. 3,515,465, 6-2-70, Cl. 350-319.

Jones, Richard Stanton, to British Hovercraft Corporation. Flexible skirting assemblies for ground effect machines. 3,502,168, 3-24-70, Cl. 180-127.

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Jones, Robert D.; and Klee, David J., to Air Products and Chemicals, Inc. Low temperature apparatus for deflashing molded articles. 3,528,201, 9-15-70, Cl. 51-164.

Jones, Robert E., Jr.; and Price, Harold J., to Kaman Science Corporation. Automatic neutron activator analyzer. 3,515,868, 6-2-70, Cl. 250-106.

Jones, Robert E., to Elgin Electronics, Inc. Over and under voltage protection circuit. 3,512,044, 5-12-70, Cl. 317-16.

Jones, Robert E., to Elgin Electronics Incorporated. Series regulator with current limiter. 3,538,426, 11-3-70, Cl. 323-9.

Jones, Robert F., to Hoffman Manufacturing Company. Cluster making machine and method. 3,495,550, 2-17-70, Cl. 107-1.

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Jones, Robert L.; and Brandon, William A., Jr., to Burlington Industries, Inc. Foam back drapery fabrics and method of making the same. 3,527,654, 9-8-70, Cl. 117-66.

Jones, Robert L.; and O'Kane, James H. Helmet assembly and latch means therefor. 3,502,074, 3-24-70, Cl. 128-142.5

Jones, Robert S., to Textron, Inc. Grinding machinery. 3,524,283, 8-18-70, Cl. 51-5.

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Jones, Robert W. Pin sockets for electronic circuit devices. 3,543,215, 11-24-70, Cl. 339-17.

Jones, Robert W. Integrated circuit pin-socket receptacle assemblies. 3,543,220, 11-24-70, Cl. 339-91.

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Jones, Stanley C., to Marathon Oil Company. Cosurfactant influencing the thermostability of micellar dispersions. 3,493,048, 2-3-70, Cl. 166-252.

Jones, Stanley C., to Marathon Oil Company. Use of water-external micellar dispersions in oil recovery. 3,506,070, 4-14-70, Cl. 166-273.

Jones, Stanley C., to Marathon Oil Corporation. Use of water-external micellar dispersions in oil recovery. 3,506,071, 4-14-70, Cl. 166-273.

Jones, Stanley C., to Marathon Oil Company. Stability of a secondary-type recovery process. 3,507,331, 4-21-70, Cl. 166-273.

Jones, Stanley C., to Marathon Oil Company. Imparting in situ stability to displacing fluids. 3,520,366, 7-14-70, Cl. 166-273.

Jones, Stanley C., to Marathon Oil Company. Oil recovery process with cosurfactant influencing the thermostability of micellar dispersions. 3,536,136, 10-27-70, Cl. 166-252.

Jones, Stanley C.; Roszelle, Wayne O.; and Svaldi, Marvin A., to Marathon Oil Company. High water content oil-external micellar dispersions. 3,497,006, 2-24-70, Cl. 166-273.

Jones, Stanley L.: *See—*
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Jones, Stanley R.; and Long, Brian H., to Astrodata Inc. Card reader. 3,500,021, 3-10-70, Cl. 235-61.11

Jones, Taylor L.; and Turner, John W., Jr., to Jackson, Byron, Inc. Rotating flapper elevator. 3,495,864, 2-17-70, Cl. 294-90.

Jones, Taylor L.; and Turner, John W., Jr., to Jackson, Byron, Inc. Block and hook structure positioning and guiding apparatus. 3,507,405, 4-21-70, Cl. 214-2.5

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Jones, William A.; and Swaner, Robert R. Endless track attachment for motorcycles. 3,545,559, 12-8-70, Cl. 180-5.

Jones, William C. Breath isolator for pulmonary function testing. 3,512,521, 5-19-70, Cl. 128-2.08

Jones, William C. Respiration testing apparatus. 3,527,205, 9-8-70, Cl. 128-2.08

Jones, William C. Respiration testing apparatus. 3,527,206, 9-8-70, Cl. 128-2.08

Jones, William C. Pulmonary monitoring apparatus. 3,533,398, 10-13-70, Cl. 128-2.

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Jones, William N.; and Ellis, Jefferson W., to Hooker Chemical Corporation. Metal treating process and composition. 3,515,600, 6-2-70, Cl. 148-6.16
Jones, William Olin, Jr., to Reynolds Metals Company. Apparatus for and method of testing and thereafter simultaneously testing and blocking strip conductor coils. 3,526,835, 9-1-70, Cl. 324-158.
Jones, William Owen McKenzie. Apparatus for presetting machine tools. 3,490,318, 1-20-70, Cl. 82-1.
Jones, William Owen, to British Oxygen Company Limited, The. Apparatus for determination of contaminants in a liquefied gas. 3,539,301, 11-10-70, Cl. 23-254.
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Jonker, Gerard Heinrich; and Noorlander, Willem, to U.S. Philips Corporation, mesne. Thermistor. 3,510,820, 5-5-70, Cl. 338-22.
Jonkman, Frederik J., to Nederlandse Maatschappij Voor Werken Buitengaats (Netherlands Offshore Company). Device for raising an anchor. 3,547,067, 12-15-70, Cl. 114-206.
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Jonnes, Nelson; and Vanstrum, Robert C., to Minnesota Mining and Manufacturing Company. Markers. 3,499,371, 3-10-70, Cl. 94-1.5
Jons, Kurt; and Marx, Gerhard, to Kalle Aktiengesellschaft. Illuminating device for reproduction purposes. 3,503,681, 3-31-70, Cl. 355-78.
Jonson, Bjorn Lars Herman, to Jarnhs Elektriska Aktiebolag. Flow regulator. 3,502,100, 3-24-70, Cl. 137-495.
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Jonsson, Georg Salomon; and Andersson, Karl Osten Ingvar, to Aktiebolaget Atomenergi. Neutron detector having a standard beta source for producing a continous check current. 3,511,994, 5-12-70, Cl. 250-83.1
Jonsson, Karl-Erik A., to Brundell Jonsson Och AB. Method and means for guiding logs onto a processing machine. 3,490,665, 1-20-70, Cl. 226-4.
Jonsson, Karl-Erik A.; and Matlik, August, to Brundell Och Jonsson AB. Means for mounting debarking tools on an annular debarking rotor. 3,523,564, 8-11-70, Cl. 144-208.
Jonsson, Karl-Erik Arnold, to Brundell Cch Jonsson AB. Road grading machine. 3,539,014, 11-10-70, Cl. 172-111.
Jonsson, Karl-Erik Arnold, to Brundell Och Jonsson AB. Means for cutting trees. 3,540,501, 11-17-70, Cl. 144-34.
Jonsson, Kurt Alvar, to Aktiebolaget Electrolux. Self-adjusting multipurpose nozzle. 3,497,903, 3-3-70, Cl. 15-319.
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Jonsson, Sven O. I.; and Jonsson, Rune B., to Aktiebolaget Hagelsrums Mekaniska Verkstad. Reversible freewheel clutch mechanism having automatically acting pawl release means. 3,511,348, 5-12-70, Cl. 192-43.1
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Joo, Louis A.; and Bryan, Loren A., to Great Lakes Carbon Corporation. Production of alpha-naphthoquinones. 3,534,069, 10-13-70, Cl. 260-396.
Joo, Louis; and Kramer, Walter E., to Union Oil Company of California, mesne. Stabilized halogenated hydrocarbon toxicant compositions. 3,511,638, 5-12-70, Cl. 71-109.
Joor, William E., II, to U.S. Industries, Inc. Suspension roof. 3,521,416, 7-21-70, Cl. 52-222.
Joormann, Hendrik Jacobus Maria; and Wesselink, Gustaaf Adolf, to U.S. Philips Corporation, mesne. Alkali-metal vapor resistant glass. 3,532,523, 10-6-70, Cl. 106-47.
Joos, Eric, to Aktiebolaget Eric Joos. Roof rack for cars. 3,512,082, 5-12-70, Cl. 224-42.1
Joos, Henry A., to LTV Aerospace Corporation. Apparatus for preventing damage to paved surfaces by cleated, vehicular driving members. 3,542,439, 11-24-70, Cl. 305-34.
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Jordaan, Barend Daniel. Rotary engines. 3,537,432, 11-3-70, Cl. 123-8.41
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Jordan, David P.; and Antonsen, Donald H., to International Nickel Company, Inc., The. Electroless plating of nickel via decomposition of nickel zero complexes in solution. 3,529,989, 9-22-70, Cl. 117-47.
Jordan, Donald E., to Pneumatic Applications Company, mesne. Diaphragm operated brake or clutch unit. 3,527,329, 9-8-70, Cl. 192-88.
Jordan, Frederick James; and Wells, Sydney Tom, to English Electric Company Limited, The. Manufacture of thermocouples. 3,548,490, 12-22-70, Cl. 29-573.
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Jordan, James E., to Outside Carpets, Inc. Laminated carpet or mat. 3,515,622, 6-2-70, Cl. 161-66.
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Jordan, John Paul, to Gulton Industries Inc. Heat radiating articles. 3,513,297, 5-19-70, Cl. 219-545.
Jordan, Jules L. Brassiere construction. 3,521,642, 7-28-70, Cl. 128-479.
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Hardy, John F.; and Jordan, Merrill E.,3,510,292.
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Jordan, Michel; Boyenval, Bernard; Tanguy, Jean-Louis; Zajac, Edmond; and Sandre, Georges, to Regie Nationale des Usines Renault, and Automobiles Peugeot. Rear view mirrors. 3,534,938, 10-20-70, Cl. 248-484.
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Jorgensen, Irving W. Cleaning tool. 3,540,071, 11-17-70, Cl. 15-105.
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Josefsson, Erik Anders Ake; Bengtsson, Erik Axel; and Almqvist, Kurt Karl Axel, to Stora Kopparbergs Bergslags Aktiebolag. Process of desulphurizing pig iron in the reduction of ore in a rotary furnace. 3,505,061, 4-7-70, Cl. 75-40.
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Joseph, Michel. Pneumatic punch press. 3,499,369, 3-10-70, Cl. 92-16.
Joseph, Owen Francis, to Marconi Company Limited, The. Methods of manufacturing semiconductor devices. 3,530,016, 9-22-70, Cl. 148-189.
Joseph, Owen Francis, to Marconi Company Limited, The. Methods of manufacturing planar transistors. 3,540,950, 11-17-70, Cl. 148-187.
Joseph, Phillip J.; and Rosenthal, Paul, to Cornell Aeronautical Laboratory, Inc. Cavitation machining apparatus. 3,538,803, 11-10-70, Cl. 83-701.
Joseph, Pierre, to Dubied, Edouard, et Cie, (Societe Anonyme). Cam box for flat knitting machines. 3,514,976, 6-2-70, Cl. 66-78.
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Joseph, Robert John, to Xerox Corporation. Photoconductive layer comprising a selenium compound and a solid hydrophobic metal salt of a fatty acid. 3,489,560, 1-13-70, Cl. 96-1.5
Joseph, Robert John, to Xerox Corporation. Method of treating the surface of a xerographic plate with a metal salt of a fatty acid to improve image transfer. 3,501,294, 3-17-70, Cl. 96-1.4
Joseph, William F.; and Wallace, John F., to Rossborough Supply Company. Method of preparing melts of zinc base alloys and improved flux therefor. 3,512,959, 5-19-70, Cl. 75-87.
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Josepha, Walter J. Tidal flushing system. 3,492,822, 2-3-70, Cl. 61-1.
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Jouffroy, Suzanne. Process for manufacturing sponges containing a charge of material. 3,512,839, 5-19-70, Cl. 300-21.

Joullie, Maurice; Laurre, Michel; Maillard, Gabriel; and Muller, Pierre, to Recherches Pharmaceutiques et Scientifiques. Dimethyl xanthine derivatives and production thereof. 3,493,573, 2-3-70, Cl. 260-253.

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Jousserandot, Pierre E., to Regie Nationale des Usines Renault, and Automobiles Peugeot. Devices for reducing the aerodynamic drag of automotive vehicles. 3,529,862, 9-22-70, Cl. 296-1.

Jouve, Philippe, to Societe Anonyme dite: Societe Nationale des Petrole d'Aquitaine. Current-frequency converter wherein output frequency is proportional to the square root of the input current. 3,539,931, 11-10-70, Cl. 328-144.

Jouve, Philippe, to Societe Nationale des Petroles d'Aquitaine. Method of integrating over a floating interval and apparatus comprising a magnetic tape for carrying out this process. 3,548,183, 12-15-70, Cl. 235-183.

Jouy, Alain-Daniel, to Eastman Kodak Company. Method of preparing silver halide grains having high internal sensitivity. 3,511,662, 5-12-70, Cl. 96-94.

Jovis, Arthur. Pile driving system. 3,498,388, 3-3-70, Cl. 173-2.

Jowitt, Peter Frederick, to United Kingdom of Great Britain and Northern Ireland, Minister of Aviation in Her Britannic Majesty's Government of the. Method and means for reducing hazards due to loose stray objects or articles. 3,500,129, 3-10-70, Cl. 317-9.

Joy, Ivan L.; Johnson, Charles D.; and Sublett, Ira, to Fairmont Railway Motors, Inc. Railroad track alignment indicating system employing modulated infrared techniques. 3,521,066, 7-21-70, Cl. 250-83.3

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Joyce, Asa W.; and Leavitt, Julian J., to American Cyanamid Company. Dichlorotriazino substituted phthalocyanine dyestuffs. 3,507,864, 4-21-70, Cl. 260-248.

Joyce, Asa W.; and Leavitt, Julian J., to American Cyanamid Company. Vat dyes from chlorocarbonyl aryl dichlorotriazines. 3,509,143, 4-28-70, Cl. 260-249.

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Joyce, Ronald Wayne, to Victor Comptometer Corporation. Air ignition gun. 3,537,352, 11-3-70, Cl. 89-7.

Joyce, Ronald Wayne; Billingslea, Eugene E.; and Hurley, Paul Oliver, to Victor Comptometer Corporation, mesne. Air operated projectile firing apparatus. 3,503,299, 3-31-70, Cl. 89-7.

Joyce, Ronald W.; Billingslea, Eugene E.; Sage, Leopold C.; and Marshall, Robert K., to Victor Comptometer Corporation. Air operated projectile firing apparatus. 3,497,984, 3-3-70, Cl. 42-39.5

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Joyner, Frederick B.; and Cash, George O., Jr., to Eastman Kodak Company. Three component alkyl aluminum halide catalyst for polymerization of ethylenically unsaturated compounds containing as a third catalyst component substituted alkaline earth amides. 3,492,280, 1-27-70, Cl. 260-93.7

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Joyner, Philip G., to Dowty Hydraulic Units Limited. Gearing and lubricating means therefor. 3,490,382, 1-20-70, Cl. 103-126.

Joynson, Reuben E.; Neugebauer, Constantine A.; and Rairden, John R., III, to General Electric Company. Method for forming thin films having super- conductive contacts. 3,519,481, 7-7-70, Cl. 117-212.

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Joyslen, Jack F. Apparatus for cutting sheet materials. 3,490,334, 1-20-70, Cl. 90-14.

Jozwiak, Daniel J.: *See—*
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Jubb, Albert; Johnson, Christopher Linley; and Cantwell, Hugh Francis, to Rolls-Royce Limited. Gas turbine engine fuel system. 3,488,946, 1-13-70, Cl. 60-39.09

Jubb, Anthony Howden: *See—*
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Jubin, John C., Jr., to Atlantic Richfield Company. Method for monochlorinating paraffins. 3,505,418, 4-7-70, Cl. 260-660.

Jubin, John C., Jr.; and Becker, Matthew L., to Atlantic Richfield Company. Purification of hydrogen chloride produced by the chlorination of paraffin hydrocarbons. 3,537,818, 11-3-70, Cl. 23-154.

Juchheim, Moritz Kurt. Glass contact thermometer. 3,511,096, 5-12-70, Cl. 73-371.

Jucker, Ernst; Ebnother, Anton; and Bastian, Jean-Michael, to Sandoz Ltd., a/k/a Sandoz AG. 1,3,4,9b-Tetrahydro-2H-indeno[1,2-c]pyridines. 3,497,517, 2-24-70, Cl. 260-293.

Jucker, Ernst; Ebnother, Anton; and Bastian, Jean-Michel, to Sandoz Ltd., a/k/a/ Sandoz A.G.5H-indeno[1,2-c]pyridine-5-ones. 3,499,895, 3-10-70, Cl. 260-247.5

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Jucker, Ernst; Ebnother, Anton; and Rissi, Erwin, to Sandoz Ltd., a/k/a Sandoz AG. Phenothiazine derivatives. 3,531,480, 9-29-70, Cl. 260-243.

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Jucker, Ernst; and Gmunder, John, to Sandoz Ltd., a/k/a Sandoz A.G. Basically substituted benzoic acid amides. 3,507,875, 4-21-70, Cl. 260-293.4

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Judd, Frank F.; and Raber, Stanley, to Bell Telephone Laboratories, Incorporated. Inverter starting circuit. 3,535,612, 10-20-70, Cl. 321-45.

Judd, Tyler W., to Republic Steel Corporation. Signal generating apparatus and method. 3,545,258, 12-8-70, Cl. 73-67.9

Judge, Dan Gordon, Jr., to Honeycomb Company of America, Inc. Honeycomb core machine and method. 3,493,450, 2-3-70, Cl. 156-197.

Judge, Dan Gordon, Jr., to Honeycomb Company of America, Inc. Honeycomb expanding devices. 3,514,352, 5-26-70, Cl. 156-197.

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Judge, Darrell L.: *See—*
Morse, Arthur L.; and Judge, Darrell L.,3,528,005.

Judge, John J. Tool holder apparatus. 3,494,229, 2-10-70, Cl. 82-36.

Judge, John S.; Morrison, John R.; and Speliotis, Dennis E., to International Business Machines Corporation. Magnetic information storage and readout apparatus. 3,526,881, 9-1-70, Cl. 340-174.

Judge, John S.; Morrison, John R.; and Speliotis, Dennis E. Method of making isocoercive magnetic alloy coatings. 3,549,417, 12-22-70, Cl. 117-240.

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Judge, William J., to Magnavox Company, The. Demodulator for double sideband suppressed carrier signals. 3,537,017, 10-27-70, Cl. 329-122.

Judice, Bobby G., to Texaco Inc. Flexible dispensing nozzle for use in an automatic bag filling machine. 3,507,422, 4-21-70, Cl. 222-529.

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Judson, George T.; and Freireich, Emil J., to United States of America, Surgeon General of the Public Health Service. Method and apparatus for continuous separation of blood in vivo. 3,489,145, 1-13-70, Cl. 128-214.

Judson, William Raymond. Positioning device for core pins. 3,498,581, 3-3-70, Cl. 249-67.

Judy, Robert V., to International Telephone and Telegraph Corporation. Linefinder circuit responsive only to full pulses. 3,522,386, 7-28-70, Cl. 179-18.

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Juelg, Edward L.; and Sigel, Charles K., to Baldwin-Lima-Hamilton Corporation. Radial welding apparatus. 3,536,886, 10-27-70, Cl. 219-125.

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Juery, Gerard, to La Telemecanique Electrique. Electric contact device used with push-button activation. 3,514,565, 5-26-70, Cl. 200-167.

Jueschke, Norman F., to General Electric Company. Stabilizing spring assembly for brushholder. 3,526,797, 9-1-70, Cl. 310-245.

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Juggins, Cyril E., to General Motors Corporation. Battery terminal connectors. 3,538,490, 11-3-70, Cl. 339-226.

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Jugle, Don B., to Xerox Corporation. Self-cleaning corona generating apparatus. 3,496,352, 2-17-70, Cl. 250-49.5

Jugler, John, to Branson Instruments, Incorporated. Control circuit for tool driven by sonic energy. 3,493,457, 2-3-70, Cl. 156-580.

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Juhasz, Adam; and Mahig, Attila, to Chemokomplex Vegyipari Gepes Berendezes Export Import Vallalat. Filter press. 3,503,326, 3-31-70, Cl. 100-115.

Juhasz, Daniel P.; Bohorquez, Louis; and Vindez, Pierre G., to Zephyr Manufacturing Co., Inc., mesne. Positive depth control drill. 3,487,729, 1-6-70, Cl. 77-13.

Juhasz, Daniel P.; Bohorquez, Luis A.; and Vindez, Pierre G., to Zephyr Manufacturing Co., Inc.-Manufacturing Division. Drill with automatic feed and quick retraction. 3,512,434, 5-19-70, Cl. 77-7.

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Juhl, James L., to Case, J. I., Company, mesne. Nursery tree digger. 3,512,276, 5-19-70, Cl. 37-2.

Juhl, William G.: *See—*
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Juhos, Eva Th., to Beckman Instruments, Inc. Drying and preservation of electrophoresis gel films. 3,523,863, 8-11-70, Cl. 161-249.

Juillerat, Henri. Collapsible grinding tool. 3,512,312, 5-19-70, Cl. 51-338.

Juillet, Jacques; and Charbonnier, Gerard, to Compagnie Generale d'Automatisme, Compagnie Generale d'Entreprises Electriques, and Metallgesellschaft Aktiengesellschaft. Apparatus for sampling and analyzing pulverulent material. 3,499,144, 3-3-70, Cl. 250-51.5

Jukes, Norman Alfred, to Lucas, Joseph, (Industries) Limited. Contact breaker assemblies. 3,535,477, 10-20-70, Cl. 200-19.

Jukkola, Walfred W.: *See—*
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Julesz, Bela: *See—*
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Julian, Robert A. Lawn raking tool attachment for rotary blade type lawn mowers. 3,511,036, 5-12-70, Cl. 56-27.

Juliano, Joseph O.; and Bednar, Donald A., said Bednar assor. to Magnavox Company, The. Power supply for electrically actuated fuse. 3,540,377, 11-17-70, Cl. 102-70.2

Julie, Loebe, to Julie Research Laboratories, Inc. Reed relay module. 3,488,760, 1-6-70, Cl. 335-154.

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Julie, Loebe, to Julie Research Laboratories, Inc. Circuit for producing a synthesized impedance. 3,517,303, 6-23-70, Cl. 323-100.

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Juliusburger, Hans Y.: *See—*
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Juliusburger, Hans Y., to International Business Machines Corporation. Electronic keyboard terminal code checking system. 3,493,928, 2-3-70, Cl. 340-146.1

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Juliusburger, Hans Y.; Krakinowski, Morris; and Stilwell, George R., Jr., to International Business Machines Corporation. Multiple switch encoding device. 3,551,616, 12-29-70, Cl. 200-46.

Jull, George W.: *See—*
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Jull, Norman A.; McCracken, Herbert A.; and Graham, James C. L., to Technequip Company Limited, The. Large ball check valves. 3,509,900, 5-5-70, Cl. 137-112.

Jull, Norman A.; McCracken, Herbert A.; and Graham, James C. L., to Technequip Company Limited, The. Multiple inlet ball check valve. 3,520,319, 7-14-70, Cl. 137-111.

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Philippe; and Vandergucht, Guy Charles Francois Georges,3,541,103.

Jullien-Davin, Jean, to Crouzet. Electric switching device. 3,513,274, 5-19-70, Cl. 200-67.

Jullien-Davin, Jean, to Crouzet. Electric connection system, especially for domestic appliances. 3,534,325, 10-13-70, Cl. 339-198.

Jullien-Davin, Jean, to Crouzet. Tight motion transmitting system through a thin metal membrane. 3,538,296, 11-3-70, Cl. 219-105.

Jullien, Gerard Michel Rene: *See—*
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July, Albert. Self-coupling tractor hitch. 3,495,851, 2-17-70, Cl. 280-510.

Jump, William L.; and Quanstrom, Jack L., to International Business Machines Corporation. Multi-phase power failure detection circuit. 3,546,537, 12-8-70, Cl. 317-31.

Juncu, Virginia; Torok, Zsigmond; and Petra, Ioan, to Intreprindera Industriala Metalurgica de Stat 'Metalul Rosu'. Drive mechanism for rectilinear knitting machines. 3,550,399, 12-29-70, Cl. 66-60.

Jund, Christian, to CSF-Compagnie Generale de Telegraphie Sans Fil. Strain gauge arrangement. 3,492,861, 2-3-70, Cl. 73-88.5

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June, Mary C. Trousers shield. 3,527,222, 9-8-70, Cl. 128-287.

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Junek, Jan: *See—*
Ripka, Josef; Hortlik, Frantisek; Junek, Jan; and Marsalek, Milan,3,538,698.

Junemann, Hubert; Scholl, Hans; and Strothmann, Wilfried, to Kochs Adlernahmaschinen Werke AG. Controlling system for sewing machines. 3,548,768, 12-22-70, Cl. 112-252.

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Jung, Johann; and Koenig, Karl-Heinz, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Method of stunting plant growth with substituted hydrazonium salts. 3,497,343, 2-24-70, Cl. 71-76.

Jung, Johann; and Scholz, Heinrich, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Method of retarding plant growth with heterocyclic quaternary ammonium salts. 3,542,538, 11-24-70, Cl. 71-76.

Jung, John J.: *See—*
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Jung, Margarete; and Kroeger, Hanns H., to Varta Aktiengesellschaft. Method of directly converting the chemical energy of complex hydrides into electrical energy. 3,511,710, 5-12-70, Cl. 136-86.

Jung, Richard, to Steinmuller, L. & C., G.m.b.H. Device for burning moist fine granular substances and fine granular substances contained in liquid media. 3,548,759, 12-22-70, Cl. 110-7.

Jung, Robert: *See—*
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Jungclas, Elmer E., Jr., to Hughes Aircraft Company. Variable frequency pattern generator. 3,497,712, 2-24-70, Cl. 307-88.

Junger, Hans; and Weissenfels, Franz, to Dynamit Nobel Aktiengesellschaft. Fire-preventive structural matrix and process of making the same. 3,510,446, 5-5-70, Cl. 260-38.

Junger Instrument Aktiebolag: *See—*
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Junger, Jean-Marie: *See—*
Bonnet, Georges L.; Di Piazza, Learco; Junger, Jean-Marie; Leroy, Rene S.; Mollica, Guido; and Monzani, Ermelino,3,533,318.

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Jungner, Olof Gunnar Hugo; and Jungner, Bengt Gosta Ingmar, to AB Autokemi. Apparatus for analyzing liquid samples. 3,525,591, 8-25-70, Cl. 23-253.

Jungner, Olof Gunnar Hugo; and Jungner, Bengt Gosta Ingmar, to AB Autokemi. Apparatus for analyzing liquids. 3,549,330, 12-22-70, Cl. 23-259.

Jungwirth, Robert L., to United States of America, Army. Dome light assembly. 3,515,863, 6-2-70, Cl. 240-7.35

Junk, Carl, to Adams, J. D., Co. Roof truss jig. 3,497,201, 2-24-70, Cl. 269-32.

Junkert, Kenneth G.; and Ne Smith, Woodrow W., to Northrop Corporation. Apparatus for electrically scanning instrument dials. 3,546,470, 12-8-70, Cl. 250-219.

Junovich, Mark Iosifovich; and Kazakov, Nikolai Ivanovich, to Vsesojuzny nauchno-issledovatelsky gornomerallur gischesky institut tsvetnykh metallov. Device for loading bulk materials into pressure piping. 3,544,168, 12-1-70, Cl. 302-14.

Junta, Barbara: *See—*
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Jura, Stanislav; and Toifl, Jaroslav, to Vyzkumny ustav matematickych stroju. Optical scanning head with four optical transmission lines and photosensors. 3,497,694, 2-24-70, Cl. 250-202.

Jurado, Alberto; and Ma Puigmarti, Jose, to Laboratorios Hosbon, S. A. Tetracycline sulfamate and derivatives thereof. 3,536,759, 10-27-70, Cl. 260-559.

Juraschek, Richard: *See—*
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Jurdyc, Marius. Mobile drum for distributing and spraying. 3,544,010, 12-1-70, Cl. 239-168.

Juredine, Gordon M., to Synthetic Products Company. Top-coated and color-stabilized foamed PVC article and plastisol liquid component thereof. 3,501,370, 3-17-70, Cl. 161-160.

Juredine, Gordon M., to Synthetic Products Company. Vinyl halide polymers stabilized with mixtures comprising a metal phenate-phosphite and a metal carboxylate-phosphite. 3,519,584, 7-7-70, Cl. 260-23.

Juredine, Gordon M., to Synthetic Products Company. Asymmetric alkaline earth metal phenate-phosphites and method of making same. 3,551,530, 12-29-70, Cl. 260-967.

Jureit, John Calvin, to Automated Building Components, Inc. High section splice plate and joint therewith. 3,494,645, 2-10-70, Cl. 287-20.92

Jureit, John Calvin, to Automated Building Components, Inc. Decorative structural wooden joint. 3,501,181, 3-17-70, Cl. 287-20.92

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Jureit, John Calvin, to Automated Building Components, Inc. Hidden fastener. 3,529,918, 9-22-70, Cl. 85-13.

Jureit, John Calvin; and Coovert, Gilbert T., to Automated Building Components, Inc. Metallic tile manufacture. 3,544,353, 12-1-70, Cl. 117-26.

Jureit, John C., to Automated Building Components, Inc. Connector. 3,498,171, 3-3-70, Cl. 85-13.

Jureit, John C., to Automated Building Components, Inc. Truss, tooth connector and method of assembly. 3,503,173, 3-31-70, Cl. 52-644.

Jureit, John C.; and Csakvary, Oscar, to Automated Building Components, Inc. Toggle press. 3,520,252, 7-14-70, Cl. 100-272.

Jureit, John C.; and Kushner, Benjamin H., to Automated Building Components, Inc. Method of forming reinforced wooden members. 3,540,107, 11-17-70, Cl. 29-155.

Jurgenjanich, Hans, to Polysius G.m.b.H. Autogenous airswept mill. 3,537,658, 11-3-70, Cl. 241-44.

Jurgens, Jorg H.; Eriksson, Axel Fredrik Valdemar; and Svard, Per Olof, to Aktiebolaget Astra. Aspergillopeptidase for use in therapy and a process for the preparation thereof. 3,509,024, 4-28-70, Cl. 195-66.

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Jurion, Roland; and Nicolas, Maurice, to Societe d'Etudes Chimiques pour l'Industrie et l'Agriculture. Package for storing and dispensing caustic substances. 3,501,055, 3-17-70, Cl. 222-131.

Jurkiewitsch, George, to Hercules Incorporated. Composite polypropylene filaments having a high degree of crimp. 3,533,904, 10-13-70, Cl. 161-173.

Jurney, Joseph F.; and Roediger, Herman R., to Star Paper Tube, Inc. Yarn carrier tube. 3,544,034, 12-1-70, Cl. 242-118.32

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Justi, H. D.: *See—*
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Kamegaya, Takeo, to Japan Broadcasting Corporation. Plural section electrode for cold cathode electric discharge tube. 3,509,409, 4-28-70, Cl. 313-205.
Kamegaya, Takeo; Takamura, Naoyuki; Inoue, Mitsuo; Someya, Akira; and Hashimoto, Tsunekazu. Electric discharge lamps having hot cathode. 3,522,466, 8-4-70, Cl. 313-212.
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Kameoka, Akio; and Kobayashi, Masami, to Tokyo Shibaura Electric Co., Ltd. Electronic musical apparatus improved in a musical tone generating circuit. 3,532,799, 10-6-70, Cl. 84-1.12
Kameoka, Yoshihisa, to Yokogawa-Hewlett-Packard, Ltd. Modulator having linearized input-output characteristic and separate D.C. and A.C. outputs. 3,521,151, 7-21-70, Cl. 332-16.
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Kamimura, Akira; Tsugawa, Ryuichiro; and Okumura, Shinji, to Ajinomoto Co., Inc., and Sanraku Ocean Co., Ltd. Process of producing L-glutamic acid by fermentation. 3,551,292, 12-29-70, Cl. 195-30.
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Kaminow, Ivan P.; and Smith, Peter W., to Bell Telephone Laboratories, Incorporated. Transverse mode locking and beam scanning in optical masers. 3,541,471, 11-17-70, Cl. 331-94.5
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Kaminsky, Daniel, to Warner-Lambert Pharmaceutical Company. Furo quinoline carboxylates. 3,506,667, 4-14-70, Cl. 260-287.
Kaminsky, Daniel; and Meltzer, Robert I., to Warner-Lambert Pharmaceutical Company. Method for control of coccidiosis employing quinoline carboxylic acids and esters thereof. 3,509,257, 4-28-70, Cl. 424-258.
Kaminsky, Daniel; and Meltzer, Robert I., to Warner-Lambert Pharmaceutical Company. 1,4-Dihydro-1-substituted alkyl-6,7-methylenedioxy-4-oxoquinoline-3-carboxylic acid. 3,524,858, 8-18-70, Cl. 260-287.
Kaminsky, Victor P., 30% to Cities Service Athabasca, Inc. 30% to Imperial Oil Limited, 30% to Atlantic Richfield Corporation, and 10% to Royalite Oil Company Limited. Coalescing vessel. 3,521,756, 7-28-70, Cl. 210-521.
Kaminstein, Bernard; Joel, Henry G.; and Ravera, Giovanni, 1/3 to Olivetti, Ing. C., & C., S.p.A. Desk top electrostatic copying machine. 3,498,709, 3-3-70, Cl. 355-10.
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Kamlet, Mortimer J., to United States of America, Navy. Preparation of bis(2-fluoro-2,2-dinitroethyl) formal. 3,541,160, 11-17-70, Cl. 260-615.
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Kampf, Richard S., to Philco-Ford Corporation. Film pack structure and apparatus for handling same. 3,487,966, 1-6-70, Cl. 214-305.

Kampf, Richard S.; and Land, Elmer J., to Philco-Ford Corporation. Film developing apparatus. 3,494,273, 2-10-70, Cl. 95-89.

Kampfen, George W. Submersible motor for submersible pump. 3,539,849, 11-10-70, Cl. 310-67.

Kampfer, Helmut; Hase, Marie; von Rintelen, Harald; and Riester, Oskar, to Agfa-Gevaert Aktiengesellschaft. Optically sensitized light-sensitive material. 3,545,975, 12-8-70, Cl. 96-102.

Kampfer, John G., to Texaco Inc. Nuclear well logging electronic circuit for the surface control of a motor located in a logging sonde by frequency selective means. 3,548,271, 12-15-70, Cl. 318-16.

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Kanai, Masanori; Sagane, Norio; and Kaetsu, Isao, to Sekisui Kagaku Kogyo Kabushiki Kaisha. Process for producing multicellular synthetic resin structures. 3,513,112, 5-19-7, Cl. 260-2.5

Kanai, Shigeo; and Nakamura, Yukiyasu, to Honda Giken Kogyo Kabushiki Kaisha. Method and apparatus for concurrently grinding the teeth of a plurality of gear stock members. 3,520,087, 7-14-70, Cl. 51-95.

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Kane, James Merel, to Tremco Manufacturing Company, The. Apparatus for heating caulking materials. 3,546,430, 12-8-70, Cl. 219-316.

Kane, John F. Push-pull spring biased bar-bell type exercising device. 3,524,644, 8-18-70, Cl. 272-83.

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Kane, Raymond M., to Westinghouse Electric Corporation. Tubular incandescent lamp having coiled filament with varied-pitch segments. 3,538,374, 11-3-70, Cl. 313-273.

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Kasper, Goetz H., to Kasper Instruments, Inc. Optical alignment and exposure apparatus. 3,490,846, 1-20-70, Cl. 355-78.

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Kasten, Walter, to Bendix Corporation, The. Method of making an end closure. 3,547,719, 12-15-70, Cl. 156-69.

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Kaszmann, John. Rotary engine. 3,515,103, 6-2-70, Cl. 123-16.

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Kateb, Fuad M. Y., to Girling Limited. Sealing members. 3,535,942, 10-27-70, Cl. 74-18.2

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Kato, Hiroshi, to Allied Chemical Corporation. Device for driving sweeper for coke oven door. 3,526,013, 9-1-70, Cl. 15-93.

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Kato, Ikuji, to Ricoh Kabushiki Kaisha. Motion picture film cartridge. 3,506,346, 4-14-70, Cl. 352-72.

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Kato, Takeshi; Maehara, Shigeru; Morita, Shigeaki; Nishiwaki, Minoru; Igarashi, Isoji; Tagiri, Koichi; and Narita, Susumu, to Yawata Iron & Steel Co., Ltd., and Yokoyama Engineering Co., Ltd. Process for discharging unburned waste gas from oxygen top-blowing converter. 3,494,763, 2-10-70, Cl. 75-60.

Kato, Teiji; Sasaki, Juntaro; and Iwata, Tadao. Process for preparing alpha-olefin homopolymers and copolymers of high crystallinity from an alpha- olefin of at least three carbon atoms and catalyst therefor. 3,496,252, 2-17-70, Cl. 260-878.

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Katsoulis, Emanuel G., to Leesona Corporation. Low-current, low-capacity metal/air battery. 3,533,845, 10-13-70, Cl. 136-86.

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Katsunuma, Nobuhiko, to Chugai Seiyaku Kabushiki Kaisha. Method and preparation for clinical diagnosis. 3,493,466, 2-3-70, Cl. 195-103.5

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Katsushima, Atsuo; Hisamoto, Iwao; Fukui, Shoshin; Kato, Takahisa; and Nagai, Masayuki, to Daikin Kogyo Kabushiki Kaisha. Fluorinated diols. 3,499,940, 3-10-70, Cl. 260-633.

Katsushima, Atsuo; Hisamoto, Iwao; Fukui, Shoshin; Kato, Takahisa; and Nagai, Masayuki, to Daikin Kogyo Kabushiki Kaisha. Fluorocarbon compounds and polymers thereof. 3,514,420, 5-26-70, Cl. 260-29.6

Katsushima, Atsuo; Hisamoto, Iwao; and Nagai, Masayuki, to Daikin Kogyo Kabushiki Kaisha. Preparation of fluorine-containing carboxylic acids. 3,525,758, 8-25-70, Cl. 260-408.

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Katunich, Samuel; and Peterson, Herbert J., to United States Steel Corporation. Apparatus for machining tubular members. 3,501,981, 3-24-70, Cl. 77-3.

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Katz, Bernard. Bottle packaging process. 3,541,753, 11-24-70, Cl. 53-26.

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Katz, Jacob M. Non-bleeding dispensers for powdered materials and the like. 3,522,902, 8-4-70, Cl. 222-370.

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Katz, Leon; and Gaczi, John J., to GAF Corporation. Pigment compositions of alkylated polymers of heterocyclic N-vinyl monomers and use of same with oleoresinous vehicles. 3,492,253, 1-27-70, Cl. 260-17.

Katz, Manuel, to Bendix Corporation, The. Strip map preparation device for aircraft use. 3,526,038, 9-1-70, Cl. 33-75.

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Katz, Michael; and Adinolfi, Michael F., to E-Z Buckle Inc. Method of making a fabric covered belt backing. 3,489,630, 1-13-70, Cl. 156-202.

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Katz, Norman H.; and Beam, Roger N., to United States of America, Atomic Energy Commission, mesne. Fuel casting apparatus with collapsible core. 3,506,235, 4-14-70, Cl. 249-82.

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Katz, Robert. Apparatus for premoulding walls, panels and wall slabs, and method of use. 3,488,817, 1-13-70, Cl. 25-131.

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Katzer, Albert E.; and Houghtaling, Robert O., to General Motors Corporation. Method of plasma spraying of tetrafluoroethylene-hexafluoropropylene copolymer. 3,510,337, 5-5-70, Cl. 117-5.3

Katzer, Melvin F., to Dow Chemical Company, The. Soil sealing method. 3,520,140, 7-14-70, Cl. 61-1.

Katzer, Melvin F., to Dow Chemical Company, The. Adjustable porous bed device. 3,548,880, 12-22-70, Cl. 138-43.

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Kau, Joshua. Spinning amusement device. 3,509,659, 5-5-70, Cl. 46-47.

Kaucher, Erwin K.; and Weingrad, Richard H., to Fischer & Porter Co. Glass-working lathe. 3,498,777, 3-3-70, Cl. 65-176.

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Kauder, Otto S., to Argus Chemical Corporation. Method of preparing acyl-dihydroxybenzo- phenones. 3,505,405, 4-7-70, Cl. 260-591.

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Kauer, James C., to Du Pont de Nemours, E. I., and Company. 1-Substituted imidazoles use in ACTH reserve assay. 3,541,109, 11-17-70, Cl. 260-309.

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Kawai, Mitsuji. Device adapted to be employed in conjunction with the carburetor in an internal combustion engine. 3,530,844, 9-29-70, Cl. 123-122.

Kawai, Naoto. High pressure generating method and apparatus. 3,529,324, 9-22-70, Cl. 18-16.

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Kawai, Yuzo. Anemometer type back flow arresting device on rooftop ventilating fan. 3,525,297, 8-25-70, Cl. 98-74.

Kawaji, Akira. Injection laser adder element. 3,525,024, 8-18-70, Cl. 317-234.

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Kawakami, Iwao. 1-Hydroxyethyl-4,5-diphenylimidazole anti-phlogistic and anti-histaminic composition. 3,504,090, 3-31-70, Cl. 424-273.

Kawakami, Iwao. 4,5-Diphenylimidazole derivative. 3,519,638, 7-7-70, Cl. 260-309.

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Kawiecki, Chester J., to Joslyn Mfg. and Supply Co. Unitary series spark gap with aligned apertures. 3,535,582, 10-20-70, Cl. 315-36.

Kawiecki, Chester J., to Joslyn Mfg. and Supply Co. Surge protector assembly. 3,543,207, 11-24-70, Cl. 337-28.

Kay, Arthur: *See—*
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Kay, Daniel J.: *See—*
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Balster, Lester Alfred; and Kay, Daniel Joseph,3,519,464.

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Kay, Edward L.: *See—*
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Kay, Francis Xavier, to Instruments and Movement Limited. Duplex pressure valves. 3,491,785, 1-27-70, Cl. 137-85.

Kay, Francis Xavier, to Instruments and Movements Limited. Counters. 3,502,267, 3-24-70, Cl. 235-201.

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Kay, John C.: *See—*
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Kay, Nicholas L., to Union Oil Company of California. Selective hydrocracking process for converting heavy oils to middle distillates. 3,513,086, 5-19-70, Cl. 208-112.

Kay, Ronald William, to Distillers Company Limited, The. Production of plasticiser esters. 3,488,381, 1-6-70, Cl. 260-475.

Kay, Solomon Elijah; and Boucher, John Bradley, to Triplex Safety Glass Company Limited. Laminated transparent assemblies with preformed metal foil edge sealing means. 3,549,466, 12-22-70, Cl. 161-39.

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Kayabakogyo Kabushikikaisha: *See—*
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Kayarian, Jacques K. Method and apparatus for flow coating. 3,539,381, 11-10-70, Cl. 117-102.

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Kaye, Albert Edward: *See—*
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Kaye, Stephen; Garasi, Louis; and Rolik, Geza P., to Xerox Corporation, mesne. Radiation resistant solar cell. 3,513,040, 5-19-70, Cl. 148-178.

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Kayser, Alfred Karl. Oscillating rotor jet engine. 3,507,119, 4-21-70, Cl. 60-247.

Kayser, Lowell N., to Pillsbury Company, The. Aerated food products. 3,495,990, 2-17-70, Cl. 99-139.

Kayser-Roth Corporation: *See—*
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Kazama, Seiji; and Nakabayashi, Masamitsu, to Takeda Chemical Industries, Ltd. Method for preparing a polyurethane elastomer solution. 3,542,709, 11-24-70, Cl. 260-22.

Kazamaki, Tomokazu, to Asahi Kogaku Kogyo Kabushiki Kaisha. Compact retrofocus wide angle objective lens system. 3,506,339, 4-14-70, Cl. 350-214.

Kazamaki, Tomokazu, to Asahi Kogaku Kogyo Kabushiki Kaisha. Retrofocus lens system. 3,539,246, 11-10-70, Cl. 350-215.

Kazamaki, Tomokazu; and Matsumoto, Tohru, to Asahi Kogaku Kogyo Kabushiki Kaisha. Lens system with large teiephoto ratio. 3,502,393, 3-24-70, Cl. 350-216.

Kazamaki, Tomokazu; and Takahashi, Yasuo, to Asahi Kogaku Kogyo Kabushiki Kaisha. Highly corrected achromatic lens system. 3,490,826, 1-20-70, Cl. 350-2[illegible].

Kazamaki, Tomokazu; and Takahashi, Yasuo, to Asahi Kogaku Kogyo Kabushiki Kaisha. Long focal length lens system. 3,506,341, 4-14-70, Cl. 350-218.

Kazamaki, Tomokazu; and Takahashi, Yasuo, to Asahi Kogaku Kogyo Kabushiki Kaisha. Fisheye type objective lens system. 3,515,462, 6-2-70, Cl. 350-214.

Kazan, Benjamin, to Xerox Corporation. Method for visual comparison of information. 3,510,660, 5-5-70, Cl. 250-213.

Kazan, Benjamin, to Xerox Corporation. Pin system. 3,512,038, 5-12-70, Cl. 315-12.

Kazan, Benjamin, to Xerox Corporation. Enhancement of electrostatic images. 3,531,646, 9-29-70, Cl. 250-213.

Kazan, Benjamin, to Xerox Corporation. Device and process for reduction of background light in solid state storage panels. 3,531,647, 9-29-70, Cl. 250-213.

Kazan, Benjamin, to Xerox Corporation. Dual conductor storage panel. 3,539,862, 11-10-70, Cl. 315-169.

Kazan, Benjamin, to Xerox Corporation. Device and process for amplifying and storing an image. 3,543,032, 11-24-70, Cl. 250-213.

Kazan, Benjamin; and Ross, Bernd, to Xerox Corporation. Solid state storage panel for color reproduction. 3,531,648, 9-29-70, Cl. 250-213.

Kazan, Benjamin; and Vance, Arthur W., to Xerox Corporation. Imaging system. 3,518,698, 6-30-70, Cl. 340-174.

Kazan, Benjamin; and Winslow, John S., to Xerox Corporation, mesne. Semiconductor current control device and method. 3,523,188, 8-4-70, Cl. 250-211.

Kazan, Benjamin; and Winslow, John S., to Xerox Corporation. Device and process for image storage. 3,543,031, 11-24-70, Cl. 250-213.

Kazan, John, Jr.; and Foster, Walter Henry, Jr., to American Cyanamid Company. Fiber reactive mercury dithizonate photochromic dyes. 3,505,306, 4-7-70, Cl. 260-146.

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Kazel, Sidney. Automatic ranging and focusing system. 3,543,666, 12-1-70, Cl. 95-45.

Kazmann, Raphael G.; and McEntire, John A., III. Well drilling mud and screen composition and method of use thereof. 3,509,950, 5-5-70, Cl. 175-65.

Kazolias, William P. Vise parallel means. 3,502,319, 3-24-70, Cl. 269-280.

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KDI-Bauer Corporation: *See—*
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Keady, William L.: *See—*
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Kealey, David. Preparation of 8 mercaptoquinolines from thiourea and 8 aminoqtinoline. 3,509,159, 4-28-70, Cl. 260-289.

Keane, Raymond A., Jr.; and Adams, James N., to General Time Corporation. Illuminating assembly for a clock. 3,514,940, 6-2-70, Cl. 58-50.

Keane, Raymond A., Jr.; and Robinson, Ralph C., to General Time Corporation. Twenty-four hour alarm. 3,517,499, 6-30-70, Cl. 58-17.

Kear, Bernard H.: *See—*
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Kearney & Trecker Corporation: *See—*
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Kearney, Edward K.: *See—*
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Kearney, John. Fracture nail assembly. 3,530,854, 9-29-70, Cl. 128-92.

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Kearns, Robert W., to Tann Company, mesne. Electronic control for windshield wipers. 3,500,159, 3-10-70, Cl. 318-247.

Kearns, Robert W. Windshield wiper control. 3,529,227, 9-15-70, Cl. 318-443.

Kearns, William J.: *See—*
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Kearns, William J., to Xerox Corporation. Disposable reaction container for an automatic chemical analyzer. 3,545,935, 12-8-70, Cl. 23-253.

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Kearsley, Walter Hugh, to Fram Corporation. Thermally modulating air supplies. 3,513,817, 5-26-70, Cl. 123-122.

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Keast, Russell R.; Krusius, Ewald H.; and Thompson, John S., to FMC Corporation. Controlled solubility sanitizer tablet. 3,488,420, 1-6-70, Cl. 424-128.

Keast, Russell R.: *See—*
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Keathley, Maurice F. Frying basket. 3,534,677, 10-20-70, Cl. 99-411.

Keating, Kenneth Bernard; and McNutt, James Edgar, to Du Pont de Nemours, E. I., and Company. Alkaline secondary battery and electrolyte therefor. 3,540,935, 11-17-70, Cl. 136-86.

Keating, Richard T. Temperature control. 3,511,971, 5-12-70, Cl. 219-449.

Keating, Robert F.: *See—*
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Keating, Stephen J., Jr.; and Sawyer, Richard D., to United Aircraft Corporation. Fuel cell with temperature control. 3,539,397, 11-10-70, Cl. 136-86.

Keats, Albert Brian, to United Kingdom Atomic Energy Authority. Electrical control system array responsive to plural pulse trains. 3,548,379, 12-15-70, Cl. 340-166.

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Keats, John B., to Borg-Warner Corporation. Display device. 3,500,789, 3-17-70, Cl. 116-173.

Keats, John B., to Borg-Warner Corporation. Inflatable structure. 3,526,199, 9-1-70, Cl. 116-63.

Keats, Richard L.: *See—*
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Keberle, Wolfgang; and Mueller, Erwin, to Farbenfabriken Bayer Aktiengesellschaft. Aqueous dispersions cross-linked in an alkaline medium and shaped articles produced therefrom. 3,522,199, 7-28-70, Cl. 260-29.2

Keberle, Wolfgang; and Oertel, Gunter, to Farbenfabriken Bayer Aktiengesellschaft. Anionic polyurethane dispersions and a process for the production thereof. 3,539,483, 11-10-70, Cl. 260-29.2

Keberle, Wolfgang; Reischl, Artur; and Dieterich, Dieter, to Farbenfabriken Bayer Aktiengesellschaft. Polyurethane dispersions. 3,491,050, 1-20-70, Cl. 260-29.2

Keberle, Wolfgang; Weber, Karl-Arnold; and Berndt, Gerhard, to Farbenfabriken Bayer Aktiengesellschaft. Method of heat sealing textiles. 3,496,045, 2-17-70, Cl. 156-331.

Keck, Johannes; Koss, Friedrich-Wilhelm; Schraven, Eckhard; and Beisenherz, Gerwin, to Boehringer Ingelheim G.m.b.H. N-(Hydroxy-cyclohexyl)-aminobenzylamines and the salts thereof. 3,536,713, 10-27-70, Cl. 260-253.

Keck, Johannes; Kruger, Gerd; Machleidt, Hans; Noll, Klaus; Engelhardt, Gunther; and Eckenfels, Albrecht, to Boehring Ingelheim G.m.b.H. 1-(Amino-dihalo-phenyl)-2-amino-ethanes and ethanols and salts thereof. 3,536,712, 10-27-70, Cl. 260-253.

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Keck, Milton F.: *See—*
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Keck, Wayne B. Cotton harvester. 3,533,224, 10-13-70, Cl. 56-28.

Keck, Zack R.: *See—*
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Keckemet, Obren, to Pennwalt Corporation. Aquatic herbicides. 3,512,954, 5-19-70, Cl. 71-66.

Keckler, David P.; and Loeffler, John Edward, Jr., to Diamond Shamrock Corporation. Process for the production of unsaturated hydrocarbons. 3,537,965, 11-3-70, Cl. 204-171.

Keckler, David P.; and Loeffler, John Edward, Jr., to Diamond Shamrock Corporation. Pressure process for preparing acetylene. 3,551,512, 12-29-70, Cl. 260-679.

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Kee Lox Manufacturing Company: *See—*
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Keech, Delta Lee. Wash article. 3,514,802, 6-2-70, Cl. 15-118.

Keedwell, Cyril A., to Pall Corporation. Liquid and gas-permeable microporous materials and process for making the same. 3,520,416, 7-14-70, Cl. 210-490.

Keefe, George E., to International Business Machines Corporation. Coupled magnetic film memories. 3,551,901, 12-29-70, Cl. 340-174.

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Keefe, Thomas R.: *See—*
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Keefer, Frank D.; Thelemaque, Louis E.; and Walsh, Henry J., to Bell Telephone Laboratories, Incorporated. Multistage end marked folded ferreed switching network. 3,515,810, 6-2-70, Cl. 179-18.

Keefer, George E., to Owens-Illinois, Inc. Glass feeding orifice with multichamber combustion zones. 3,508,904, 4-28-70, Cl. 65-326.

Keefer, George E., to Owens-Illinois, Inc. Hollow glass article by module immersion technique. 3,520,668, 7-14-70, Cl. 65-23.

Keefer, John M., to United States of America, National Aeronautics and Space Administration. Phonocardiogram simulator. 3,508,347, 4-28-70, Cl. 35-17.

Keefner, Marguerite I.: *See—*
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Keeler, David G. Paint applicator for painting the side walls of tires. 3,543,718, 12-1-70, Cl. 118-211.

Keeler, Donald P.; Kerr, William B.; and Rounds, William, to United States of America, Atomic Energy Commission. Electrolytic dissolver. 3,492,217, 1-27-70, Cl. 204-272.

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Keeler, Larry G., to Granco Equipment, Inc. Billet transfer mechanism. 3,487,962, 1-6-70, Cl. 214-29.

Keeler, Miner S., II, to Keeler Brass Company. Interlocking electrical connector. 3,526,867, 9-1-70, Cl. 339-17.

Keeler, Miner S., II. Instant replay system for radios and the like. 3,538,265, 11-3-70, Cl. 179-100.11

Keeley, Phillip Alban, to U.S. Philips Corporation, mesne. Apparatus for separating ferromagnetic material from a liquid. 3,487,939, 1-6-70, Cl. 210-222.

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Keeling, Ronald James; and Guertin, Alfred Thomas, to Formica Corporation. Flexible heat and pressure consolidated decorative laminate comprising a nitrite rubber latex impregnated base and a superimposed transparent thermoplastic film. 3,547,767, 12-15-70, Cl. 161-217.

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Keen, Everett M.; Siciliano, Anthony J.; and Artamanoff, Serge, to Diamond International Corporation, mesne. Starter-grower cage for chicks. 3,492,970, 2-3-70, Cl. 119-18.

Keen, Francis Harold, to International Computers and Tabulators Limited. Punching apparatus. 3,525,471, 8-25-70, Cl. 234-56.

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Keen, James L.; and Elmquist, Lyle F., to General Mills, Inc. Treatment of cellulosic fibers with certain quaternary ammonium compounds. 3,510,246, 5-5-70, Cl. 8-116.2

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Keenan, George; and Berg, Dennis. Protective device. 3,513,842, 5-26-70, Cl. 128-157.

Keenan, Gordon J. Portable water filter unit. 3,529,726, 9-22-70, Cl. 210-232.

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Keenan, Richard M. Device for breaking in smoking pipes. 3,494,368, 2-10-70, Cl. 131-172.

Keenan, Thomas A.; and Zollinger, Howard A., to Westinghouse Electric Corporation. Storage system with means for transferring a vehicle between a plurality of paths that have control means therein. 3,519,150, 7-7-70, Cl. 214-16.4

Keene, Charles I., to Smith, Herman P. Hydraulically driven wind machine. 3,547,556, 12-15-70, Cl. 416-110.

Keene, Robert J., to United States Steel Corporation. Apparatus for maintaining a special atmosphere above a casting mold. 3,545,529, 12-8-70, Cl. 164-259.

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Keenon, Timothy R., to Ford Motor Company. Carburetor fast idle cam construction. 3,542,346, 11-24-70, Cl. 261-39.

Kees, Joe L., 1/3 each to Kees, Opal S., and Caldwell, David T. Trailer hitch. 3,490,790, 1-20-70, Cl. 280-508.

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Sietmann, Vernon H., 3,501,845.

Keesee, Daniel C. Combination electronic and air- column actuated stethoscope. 3,539,724, 11-10-70, Cl. 179-1.

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Kefalas, John H., to Honeywell Inc. Electroless plating with low controlled coercivity. 3,523,823, 8-11-70, Cl. 117-238.

Kefalas, John H.; and Loycano, Joseph A., to Honeywell, Inc. Plated super-coat and electrolyte. 3,531,322, 9-29-70, Cl. 117-236.

Kefalos, George J. Masking tape applicator. 3,537,942, 11-3-70, Cl. 156-577.

Kegan, Robert E., to General Electric Company. Apparatus for hydrogen generation. 3,516,798, 6-23-70, Cl. 23-282.

Kegeles, Mark Borisovich: *See—*
Filimonov, Alexei Nikolaevich; Kegeles, Mark Borisovich; and Malkin, Pavel Aronovich,3,530,362.

Keggi, Janis John: *See—*
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Kehl William L.; Rennard, Raymond J., Jr.; and Swift, Harold E., to Gulf Research & Development Company. Conversion of butene-2 to butene-1. 3,527,834, 9-8-70, Cl. 260-683.2

Kehl, Williim L.; Rennard, Raymond J., Jr.; and Swift, Harold E., to Gulf Research & Development Company. Process for the isomerization of butene-2. 3,527,833, 9-8-70, Cl. 260-683.2

Kehoe, Lawrence J., to Ethyl Corporation. Preparation of aldehydes from olefins. 3,534,103, 10-13-70, Cl. 260-604.

Kehoe, Lawrence J.; and Schell, Raymond A. Process for preparing alcohols and aldehydes. 3,544,635, 12-1-70, Cl. 260-604.

Kehoe, Ralph. Shampoo bowl. 3,488,781, 1-13-70, Cl. 4-159.

Kehr, Clifton L., to Grace, W. R., & Co. Carbazate crosslinking agent and thermosetting resin compositions and process of making same. 3,513,125, 5-19-70, Cl. 260-47.

Kehrberger, Achim, to Delmag-Maschinenfabrik Reinhold Dornfeld. Telescopic drill rods for soil drilling equipments. 3,517,760, 6-30-70, Cl. 175-321.

Kehse, Wolfgang. Apparatus for reacting flowable and gaseous materials with each other. 3,497,327, 2-24-70, Cl. 23-288.

Keib, Heinz: *See—*
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Keil, Alfred; Malty, Heinz; Gruhl, Hans; and Wolfl, Adolf, to VEB Sachsisches Kunstseidenwerk Siegfried Radel. Method of making nozzles for spinning fibers. 3,491,181, 1-20-70, Cl. 264-219.

Keil, Edward W., to Total Systems Concept Inc. Liquid removing machine. 3,505,701, 4-14-70, Cl. 15-102.

Keil, John Gerard; and Hooper, Irving R., to Bristol-Myers Company. Antibacterial agents. 3,494,914, 2-10-70, Cl. 260-210.

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Keil, Joseph W., to Dow Corning Corporation. Foams, compositions, method for making foams and foam covered substrate II. 3,511,788, 5-12-70, Cl. 260-2.5

Keil, Joseph W., to Dow Corning Corporation. Dimethylpolysiloxanes and copolymers containing SiO_2 units is release agent. 3,527,659, 9-8-70, Cl. 117-145.

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Keim, Melville. Ring member adapted to be placed around a shank at a midpoint thereof. 3,495,496, 2-17-70, Cl. 85-51.

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Keith, Carl D.; and Cornely, Kurt W., to Engelhard Industries, Inc. Preparation of alumina by hydrolysis of aluminum. 3,488,147, 1-6-70, Cl. 23-143.

Keith, Carl D.; and Cornely, Kurt W., to Engelhard Industries, Inc. Method for the production of alumina trihydrate dominant in bayerite. 3,494,733, 2-10-70, Cl. 23-143.

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Keith, Frederick W., Jr.; and Lavanchy, Andre C., to Pennwalt Corporation, mesne. Centrifuge for separating solids from liquid. 3,529,767, 9-22-70, Cl. 233-14.

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Keith, John V., to Leesona Corporation. Textile machinery. 3,550,871, 12-29-70, Cl. 242-18.

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Keith, Percival C.; Johanson, Edwin S.; Wolk, Ronald H.; Alpert, Seymour B.; and Schuman, Seymour C., to Hydrocarbon Research, Inc. Ebullated bed coal hydrogenation. 3,519,555, 7-7-70, Cl. 208-10.

Keith, Roger H. Windlass for operation in enclosed vessels. 3,521,499, 7-21-70, Cl. 74-89.2

Keithley, Joseph F. Acoustic mine firing control system. 3,518,941, 7-7-70, Cl. 102-18.

Keithley, Robert J., to Borden, Inc. Composition for adhering plastic film to a vapor penetrable non-metallic substrate. 3,524,828, 8-18-70, Cl. 260-17.

Keizer, Jan, to Gulf & Western Industries, mesne. Temperature rate of change sensor.,3,530,452, 9-22-70, Cl. 340-227.1

Keizer, Volkert Govert; and Zwagemakers, Johannes Maria Antonius, to U.S. Philips Corporation, mesne. 1-(2-Methylthiophenoxy)-2-hydroxy-3-isopropylamino propane and the salts thereof. 3,542,874, 11-24-70, Cl. 260-501.19

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Kelbch, Gunther. Container closure with pouring spout and destructible sealing cap. 3,502,246, 3-24-70, Cl. 222-153.

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Kelch, Heinz; and Schuh, Eduard, to Kienzle Apparate GmbH. Coin selector for vending machine. 3,548,990, 12-22-70, Cl. 194-1.

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Kell, Furman Donald, to RCA Corporation. Drum construction for helical scan tape recorder. 3,510,604, 5-5-70, Cl. 179-100.2

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Kell, Nathaniel B., to General Motors Corporation. External final drive disconnect. 3,504,564, 4-7-70, Cl. 74-405.

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Kellems, Kenneth K., to Acme General Corporation. Folding door installation and sliding guide therefor. 3,536,120, 10-27-70, Cl. 160-206.

Keller & Knappich G.m.b.H.: *See—*
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Keller, Adam L., to Meridian Industries, Inc. Electric flasher circuit. 3,538,354, 11-3-70, Cl. 307-293.

Keller, Adam L., to Meridian Industries, Inc., mesne. Flasher control circuit. 3,551,744, 12-29-70, Cl. 317-16.

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Keller, Arthur B. Infinitely variable ratio constant mesh gearing system. 3,534,631, 10-20-70, Cl. 74-687.

Keller, Arthur H.; Everett, Charles V.; and Peacock, Peter J., to International Harvester Company. Mower crusher having selectively driven and braked reel. 3,487,612, 1-6-70, Cl. 56-23.

Keller, Arthur H.; Everett, Charles V.; Peacock, Peter J.; and Macha, Frank J., Jr., to International Harvester Company. Mower crusher with reel selectively positionable and selectively driven braked and free-wheeling. 3,528,231, 9-15-70, Cl. 56-23.

Keller, Carl Hess, Jr.; and Jones, Arthur Burton, Jr., to United Aircraft Corporation. Fusible shim for preloaded bearing. 3,528,713, 9-15-70, Cl. 308-189.

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Keller, Gregory H. Stick assortment gathering machine. 3,545,589, 12-8-70, Cl. 198-26.

Keller, Hans, to International Standard Electric Corporation. Voltage stabilization circuit. 3,523,198, 8-4-70, Cl. 307-297.

Keller, Harold A., to Potlatch Forests, Inc. Vacuum feeder for plywood veneer core sheets. 3,533,518, 10-13-70, Cl. 214-8.5

Keller, Harold A., to Potlatch Forests, Inc. Biasing and indexing apparatus for sheet conveyor assembly. 3,540,567, 11-17-70, Cl. 198-29.

Keller, Heinz: *See—*
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Keller, Horace D., Jr., to York-Hoover Corporation. Reversible blank for a casket wall. 3,504,409, 4-7-70, Cl. 27-6.

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Keller, James L., to Union Oil Company of California. Apparatus for measuring vapor-liquid ratio. 3,498,111, 3-3-70, Cl. 73-53.

Keller, John D., to Bausch & Lomb Incorporated. Burner for flame photometers. 3,507,589, 4-21-70, Cl. 431-126.

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Keller, John Walter, Jr., to Cordis Corporation. Method and apparatus for positioning the ventricular lead of a cardiac pacer. 3,508,538, 4-28-70, Cl. 128-2.05

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Keller, Joseph D.; and Middleton, William J., Jr., to Martin-Marietta Corporation. Wire terminals. 3,495,207, 2-10-70, Cl. 339-223.

Keller, Joseph Richard, to AMP Incorporated. Electrical connector. 3,510,829, 5-5-70, Cl. 339-177.

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Keller-Juslen, Camilla; Kuhn, Max; Renz, Jany; and Von Wartburg, Albert, to Sandoz Ltd., a/k/a Sandoz A.G. Epipodophyllotoxin glucoside derivatives. 3,524,844, 8-18-70, Cl. 260-210.

Keller, Karl H., to United States of America, Navy. Magnetic anchor for curved and irregular surfaces. 3,497,846, 2-24-70, Cl. 335-296.

Keller, Keith F.: *See—*
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Keller, Louis J. Track pad. 3,497,271, 2-24-70, Cl. 305-13.

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Keller Ofenbau GmbH: *See—*
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Keller, Rene, to Emhart Corporation. Article inspection apparatus. 3,549,890, 12-22-70, Cl. 250-209.

Keller, Robert C.; and Drake, Larry K., to General Motors Corporation. Column-mounted transmission control mechanism. 3,490,308, 1-20-70, Cl. 74-484.

Keller, Robert C.; and Fuelberth, Walter K., to General Motors Corporation. Lubricating means for a transmission. 3,508,630, 4-28-70, Cl. 184-11.

Keller, Robert D., to TRW Inc. Sampled data analog divider. 3,493,738, 2-3-70, Cl. 235-196.

Keller, Robert G., to CPC International Inc. Convenience package for flat storage and shipment, that is foldable to a tetrahedronal shape for mixing and dispensing. 3,542,190, 11-24-70, Cl. 206-46.

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Baumann, Hans-Peter; and Keller, Robert-Christian,3,538,151.

Keller, Rudolf; and Bindler, Jakob, to Geigy, J. R., A.G. Continuous dyeing and printing process and dye compositions suitable therefor. 3,528,761, 9-15-70, Cl. 8-42.

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Keller, Thomas C., to Timken Roller Bearing Company, The. Railway bearing seal case construction. 3,494,682, 2-10-70, Cl. 308-187.1

Keller, William F.: *See—*
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Keller, William M. Draft rigging with elongated coupler yoke. 3,539,054, 11-10-70, Cl. 213-67.

Keller, Willi, to Vickers-Zimmer Aktiengesellschaft Planung und Bau von Industrieanlagen. Spinning device. 3,516,119, 6-23-70, Cl. 18-8.

Keller, Wolfgang, to Siemens Aktiengesellschaft. Method of growing a rod-shaped monocrystal of semiconductor material by crucible-free floating zone melting. 3,498,846, 3-3-70, Cl. 148-1.6

Keller, Wolfgang, to Siemens Aktiengesellschaft. Method and apparatus for producing a monocrystalline rod, particularly of semiconductor material. 3,498,847, 3-3-70, Cl. 148-1.6

Keller, Wolfgang, to Siemens Aktiengesellschaft. Eccentrically rotated rod holder for crucible- free zone melting. 3,522,014, 7-28-70, Cl. 23-273.

Keller, Wolfgang, to Siemens Aktiengesellschaft. Zone refining method with plural supply rods. 3,539,305, 11-10-70, Cl. 23-301.

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Kellerwessel, Hans; and Kreutzberg, Claus, to Klockner-Humboldt-Deutz Aktiengesellschaft. Compacting method for finely grained potassium sulphate into shells and comminuting of the latter. 3,502,272, 3-24-70, Cl. 241-25.

Kellett, Eric, to C.A.V. Limited. Hot gas generators. 3,541,790, 11-24-70, Cl. 60-39.52

Kellett, Eric, to C.A.V. Limited. Control arrangement for a hot gas generator. 3,543,511, 12-1-70, Cl. 60-39.23

Kellett, Eric; and Tilsed, Kenneth Eric, to C.A.V. Limited. Hot gas generators. 3,498,593, 3-3-70, Cl. 263-19.

Kelley, Archibald P.; and Meshew, Allan D., to Garrett Corporation, The. Augmented ramjet engine. 3,543,520, 12-1-70, Cl. 60-269.

Kelley, Benjamin F. Combined grapple and back-up tong. 3,545,313, 12-8-70, Cl. 81-57.34

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Kelley, Dale T., to Motorola, Inc. Power transistor assembly. 3,519,896, 7-7-70, Cl. 317-234.

Kelley, Everett J., to Rohm & Haas Company. Unsaturated-acyloxyalkyl-2oxazolidinones, polymers thereof and methods of making the monomers and polymers. 3,519,608, 7-7-70, Cl. 260-86.1

Kelley, Fred W., Jr., to General Electric Company. Transformer limited range control circuitry. 3,490,030, 1-13-70, Cl. 323-22.

Kelley, Fred W., Jr., to General Electric Company. High-frequency sine-wave-static inverter. 3,519,915, 7-7-70, Cl. 321-14.

Kelley, Fred W., Jr.; and Lezan, Georges R. E., to General Electric Company. Margin angle detector. 3,541,423, 11-17-70, Cl. 321-5.

Kelley, Fred W., Jr.; and Somos, Istvan, to General Electric Company. Means for suppressing time rate of change of voltage in semiconductor switching applications. 3,489,927, 1-13-70, Cl. 307-252.

Kelley, George G., to United States of America, Atomic Energy Commission. Duoplasmatron-type ion source including a gas reservoir. 3,513,351, 5-19-70, Cl. 315-108.

Kelley, Hugh D. Bearing and seal arrangement for rigid idlers. 3,489,471, 1-13-70, Cl. 308-187.

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Propst, Robert L.; and Kelley, James O.,3,550,908.

Kelley, Jerry K.; and Decker, Ernest J., Jr., said Decker, Jr. assor. to said Kelley. Control system for controlling speed and direction of rotation of two motors with a single main control member. 3,521,136, 7-21-70, Cl. 318-38.

Kelley, Jerry O., to Cart-Trac, Inc. Capstan drive complex for sound tape cartridges. 3,495,788, 2-17-70, Cl. 242-200.

Kelley, Jerry O., to Cart-Trac, Inc. Reverse drive pinch roller for sound tape. 3,501,103, 3-17-70, Cl. 242-55.13

Kelley, John N., to Beall Pipe and Tank Corporation. Method and apparatus for forming spiral pipe. 3,524,035, 8-11-70, Cl. 219-62.

Kelley, Joseph M.; and Marinaccio, Paul J., to Dart Industries Inc. Radiation sterilized, thiodipropionic acid ester stabilized, propylene polymers. 3,537,967, 11-3-70, Cl. 204-159.18

Kelley, Kane L.; Trenner, Idamae G.; and Silber, Robert H., to Merck & Co., Inc. Topical administration of vitamin B-12. 3,548,057, 12-15-70, Cl. 424-201.

Kelley, Kork; and Kelley, Robert K. Method and apparatus for removing water and the like from gas wells. 3,493,050, 2-3-70, Cl. 166-267.

Kelley, Lonny R., to General Electric Company. Variable gain fluidic device. 3,500,848, 3-17-70, Cl. 137-81.5

Kelley, Lonny R., to United States of America, Navy. Fluid signal vibrating reed apparatus. 3,500,850, 3-17-70, Cl. 137-81.5

Kelley, Lonny R.; and Ringwall, Carl G., to United States of America, Air Force. Fluidic temperature control with temperature averaging system. 3,494,195, 2-10-70, Cl. 73-340.

Kelley, Lonny R.; and Ringwall, Carl G., to General Electric Company. Fluidic high to low frequency converter circuit. 3,547,138, 12-15-70, Cl. 137-81.5

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Kelley, Robert A. Trash receptacle. 3,502,238, 3-24-70, Cl. 220-63.

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Kelley, William E.; and De Fasselle, Robert J., to Aquarium Systems, Inc. Corner air lift for aquariums. 3,529,574, 9-22-70, Cl. 119-5.

Kelley, William E.; and Ott, Robert W., Jr., to Aquarium Systems, Inc. Aquarium. 3,490,416, 1-20-70, Cl. 119-5.

Kelling, Leroy U. C., to General Electric Company. Data conversion systems. 3,508,251, 4-21-70, Cl. 340-347.

Kelling, Leroy U. C., to General Electric Company. Contour tracing apparatus. 3,514,869, 6-2-70, Cl. 33-174.

Kelling, Leroy U.C.; Rhoades, John M.; and Thomas, Richard A., to General Electric Company. Tracing probe mechanism. 3,501,943, 3-24-70, Cl. 73-37.5

Kellinger, Ralph V.; and Wilhelm, Harvey G., to Lockheed Aircraft Corporation. Extension arm. 3,533,514, 10-13-70, Cl. 211-183.

Kellington, Maurice W., to Marshall Sons & Company Limited. Tractor hitch. 3,529,852, 9-22-70, Cl. 280-461.

Kellis, Louis T. Brush bottle. 3,544,226, 12-1-70, Cl. 401-28.

Kellner, Hans J., to Atlas Chemical Industries, Inc. Water-in-oil emulsion. 3,536,816, 10-27-70, Cl. 424-365.

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Kellogg, Harlan F., to Rockware, Inc. Multi-section shelf and bracket assembly. 3,513,786, 5-26-70, Cl. 108-64.

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Kells, Edward L.; and Groen, Frederick H., Jr., to Dover Corporation. Flat cooking apparatus. 3,489,133, 1-13-70, Cl. 126-39.

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Kelly, Andrew J.; and Britt, Robert C., to GAF Corporation, mesne. Alkoxylated tertiary amine antistatic composition. 3,519,561, 7-7-70, Cl. 252-8.8

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Kelly, Calvin E., to United States Steel Corporation. Method of and apparatus for dispensing and applying labels. 3,551,262, 12-29-70, Cl. 156-584.

Kelly, Donald A. Rotary Stirling cycle engines. 3,488,945, 1-13-70, Cl. 60-24.

Kelly, Donald A. Rotary Stirling engine-with sliding displacer rotor. 3,492,818, 2-3-70, Cl. 60-24.

Kelly, Donald A. Low friction Stirling engines and chemical heating means. 3,508,393, 4-28-70, Cl. 60-24.

Kelly, Donald A. Stirling engine power system. 3,509,719, 5-5-70, Cl. 60-24.

Kelly, Donald A. Closed cycle-tangential flow turbine. 3,516,245, 6-23-70, Cl. 60-24.

Kelly, Donald A. Closed bi-cycle gyrostabilizer turbine. 3,535,872, 10-27-70, Cl. 60-24.

Kelly, Donald A. Rotary Stirling engine with two thermal sections and photo heat source. 3,537,256, 11-3-70, Cl. 60-24.

Kelly, Donald A. Rotary Stirling cycle refrigerating system. 3,537,269, 11-3-70, Cl. 62-6.

Kelly, Douglas E., to Eaton Yale & Towne, Inc. Thermally responsive on and off vacuum control valve. 3,515,368, 6-2-70, Cl. 251-11.

Kelly, Douglas E., to Eaton Yale & Towne, Inc. Multi-temperature vacuum control valve. 3,540,422, 11-17-70, Cl. 123-117.

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Kelly, Franklin G.; and Horn, Harry J., to TRW Inc. Spacecraft attitude detector utilizing solar sensors and summation of predetermined signals derived therefrom. 3,493,765, 2-3-70, Cl. 250-209.

Kelly, George D.; and Dean, David L., to Ferro Corporation. Single fire glazed ceramic body. 3,539,387, 11-10-70, Cl. 117-123.

Kelly, Gerald W., to Wilson Engineering, Inc. Shock absorber testing apparatus. 3,530,706, 9-29-70, Cl. 73-11.

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Kelly, Herbert C., Jr. Solar heated water vapor lifting and condensing system. 3,490,996, 1-20-70, Cl. 202-234.

Kelly, Hubert K.; McDonnell, Thomas J.; and Lamkin, Richard C., to Rockwell Manufacturing Company. Cutter. 3,491,422, 1-27-70, Cl. 29-103.

Kelly, Jack L., to General Electric Company. Turntable recess for record removal. 3,495,839, 2-17-70, Cl. 274-39.

Kelly, Jack L., to General Electric Company. Phonograph spindle adaptor. 3,506,274, 4-14-70, Cl. 274-10.

Kelly, Jack L.; and Wiandt, Ronald K., to General Electric Company. Guiding structure for phonograph tone arms. 3,492,004, 1-27-70, Cl. 274-2.

Kelly, Jack L.; and Wiandt, Ronald K., to General Electric Company. Recording apparatus. 3,521,889, 7-28-70, Cl. 274-9.

Kelly, Jack L.; and Wiandt, Ronald K., to General Electric Company. Pivotal support assembly for phonograph record and playback arms. 3,531,130, 9-29-70, Cl. 274-23.

Kelly, James M.; and Kennedy, Richard M., to Bell Telephone Laboratories, Incorporated. Digital conferencing of vocoders. 3,530,246, 9-22-70, Cl. 179-1.

Kelly, James M.; Noll, A Michael; and Schroeder, Manfred R., to Bell Telephone Laboratories, Incorporated. Vocoder employing composite spectrum- channel and pitch analyzer. 3,493,684, 2-3-70, Cl. 179-15.55

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Kelly, Jeff. Conveyor cooker. 3,491,679, 1-27-70, Cl. 99-331.

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Kelly, John, Jr.; and Blount, Elmo M., to Mobil Oil Corporation. Well servicing methods utilizing a foamed hydro- phobic liquid. 3,495,665, 2-17-70, Cl. 175-69.

Kelly, John L. J., deceased (by Kelly, Myldred P., executrix); and Logan, Benjamin F., Jr., to Bell Telephone Laboratories, Incorporated. Self-adaptive echo canceller. 3,500,000, 3-10-70, Cl. 179-170.2
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Kelly, Lawrence Randolph, Jr.; and Gurley, Clyde Edward, to Pelass Systems, Inc. Automatic telephone alarm apparatus. 3,505,476, 4-7-70, Cl. 179-5.

Kelly, Lawrence Randolph, Jr.; and Gurley, Clyde Edward, to Pelass Systems, Inc. Programmable external dial operating device. 3,505,483, 4-7-70, Cl. 179-90.

Kelly, Leonard; Hutter, James F.; and Mounce, George R., to Sphere Investments Limited. Photometric sorting apparatus. 3,545,610, 12-8-70, Cl. 209-73.

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Kelsey, Christopher G., to Data Resolved Tools Pty. Ltd. Pattern making machine. 3,540,336, 11-17-70, Cl. 83-171.

Kelsey, Christopher G., to Data Resolved Tools Pty. Ltd. Three dimensional tracing unit. 3,541,695, 11-24-70, Cl. 33-24.

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Kennedy, Chester R. Electric space heater. 3,523,180, 8-4-70, Cl. 219-367.
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Keown, Lyndon L., to Singer Company, The. Fluid pressure differential control system for actuation of a movable member. 3,546,978, 12-15-70, Cl. 77-32.1
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Kerley, Robert V.; and Felt, Arthur E., to Ethyl Corporation. Method of operating an engine and fuel. 3,533,765, 10-13-70, Cl. 48-197.
Kerley, Troy L.; and Levy, Louis, to Riker Laboratories, Inc., mesne. Method of treating inflammation. 3,532,796, 10-6-70, Cl. 424-330.
Kerm, Werner, to RCA Corporation. Microminiature electrical component having indexable relief pattern. 3,543,106, 11-24-70, Cl. 317-235.
Kerma Corporation: *See—*
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Kermode, David W. Means for suppressing interference in radio circuits. 3,508,154, 4-21-70, Cl. 325-50.
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Kern, David W.; and Stelts, Philip D., to Bethlehem Steel Corporation. Apparatus for determining the temperature of a molten ferrous bath in a basic oxygen furnace. 3,505,871, 4-14-70, Cl. 73-359.
Kern, Earl C. Vehicle traffic sign. 3,509,652, 5-5-70, Cl. 40-125.
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Kern, George R., Jr. Fluid selector valves and manifold. 3,487,853, 1-6-70, Cl. 137-637.1
Kern, Georg, to Duckerhoff & Widmann Kommanditgesellschaft. Apparatus for anchoring prestressing members in prestressed concrete. 3,498,013, 3-3-70, Cl. 52-225.
Kern, Hans. Telegraph apparatus (5-unit-code) for the setting of symbols which are arranged on a type cylinder. 3,510,583, 5-5-70, Cl. 178-34.
Kern, Harvey Conrad. Impact crusher hardening method. 3,498,547, 3-3-70, Cl. 241-25.
Kern, Hobart M., Jr., to Struthers Wells Corporation. Gas diffuser nozzle. 3,490,700, 1-20-70, Cl. 239-499.
Kern, John T., to V-M Corporation. Portable tape recorder with a single finger- actuated control knob. 3,547,446, 12-15-70, Cl. 274-4.
Kern, Loyd R.: *See—*
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Kern, Raymond A.; and Price, James F., to FMC Corporation. Lubrication fitting. 3,542,155, 11-24-70, Cl. 184-105.
Kern, Rudolf; and Butula, Ivan, to Rhein-Chemie GmbH. N,N'-sulfides and method of making the same. 3,525,737, 8-25-70, Cl. 260-239.3
Kern, Rudolf: *See—*
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Kern, Walter P. Indicating dial assembly. 3,517,638, 6-30-70, Cl. 116-115.
Kernahan, John J. J., to Bell Telephone Laboratories, Incorporated. Missing character detector. 3,539,992, 11-10-70, Cl. 340-146.1
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Kernohan, Robert H.; and Sekula, Stanley T., to United States of America, Atomic Energy Commission. Dosimeter for permanently recording the effects of an integrated fast neutron dose. 3,489,900, 1-13-70, Cl. 250-83.1

Kernohan, Thomas D.: *See—*
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Kerns, Bernard A.; Manning, Lawrence J.; and Taleff, Alexander, to Westinghouse Electric Corporation. Casting apparatus for encapsulating electrical conductors. 3,529,320, 9-22-70, Cl. 18-5.

Kerns, Clyde W.; and Lee, Eugene K., to Mobil Oil Corporation. Method of determining the static shift between geophysical signals. 3,550,074, 12-22-70, Cl. 340-15.5

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Kerr, Archie F.: *See—*
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Kerr, Bob C.: *See—*
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Kerr, Charles E., to American Machine & Foundry Company. Bicycle steering wheel assembly. 3,530,738, 9-29-70, Cl. 74-551.3

Kerr, David L.; Lemon, Robert C.; and Stonebrook, Edward E., to Aluminum Company of America. Castings. 3,496,624, 2-24-70, Cl. 29-196.2

Kerr, George L. Versatile bicycle. 3,512,801, 5-19-70, Cl. 280-231.

Kerr, George T., to Mobil Oil Corporation. Hydrothermally stable catalyst and method for its preparation. 3,513,108, 5-19-70, Cl. 252-455.

Kerr, George T.; Miale, Joseph N.; and Mikovsky, Richard J., to Mobil Oil Corporation. Hydrothermally stable catalysts of high activity and methods for their preparation. 3,493,519, 2-3-70, Cl. 252-455.

Kerr Glass Manufacturing Corporation: *See—*
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Kerr Glass Manufacturing Corporation, Mesne: *See—*
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Kerr, John N. Ceramic-plastic radome. 3,545,146, 12-8-70, Cl. 52-80.

Kerr, John; and Gay, Duncan, to National Research Development Corporation. Textile spinning spindle assembly. 3,491,529, 1-27-70, Cl. 57-88.

Kerr, Norman Mitchell, to National Research Development Corporation. Clip for connecting a snood to a fishing line. 3,533,184, 10-13-70, Cl. 43-44.84

Kerr, Richard H.; and Durnell, Don D., to Kelsey-Hayes Company. Torque limiting device. 3,542,162, 11-24-70, Cl. 188-134.

Kerr, Robert A. Aerial target with posts and attached rings. 3,540,730, 11-17-70, Cl. 273-105.

Kerr, Robert O., to General Electric Company. Method and apparatus for applying insulating material onto articles of manufacture. 3,537,875, 11-3-70, Cl. 117-18.

Kerr, Robert R.; and Vallor, Ben J., to Hobart Manufacturing Company, The. Automatic dishwashing machine with soak cycle. 3,549,294, 12-22-70, Cl. 134-58.

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Kerr, William C.; Hanley, Thomas G.; and Witmer, Charles R., Jr., to Eastman Kodak Company. Treatment of polymer surfaces for coating with photographic layers. 3,531,314, 9-29-70, Cl. 117-34.

Kerr, William J., to Chicago Lock Co. Tamper-proof axial tumbler lock. 3,541,819, 11-24-70, Cl. 70-363.

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Kerridge, Mark L.: *See—*
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Kerrigan, James Charles; and Diello, William, to Eltra Corporation. Variable speed D.C. motor with third brush. 3,497,788, 2-24-70, Cl. 318-351.

Kerrigan, James E., to CPS Industries, Inc. Artificial flowers prepared from slit sheets of molecularly oriented plastic. 3,525,660, 8-25-70, Cl. 161-30.

Kerrigan, Vincent; and Pearson, Kenneth William, to Imperial Chemical Industries Limited. Carbonyl bis-urethane production. 3,505,392, 4-7-70, Cl. 260-479.

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Kerruish, Kermit D.: *See—*
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Kerschgens, Johann. Apparatus for the production of metal coatings. 3,520,792, 7-14-70, Cl. 204-224.

Kershaw, Delmar D., to General Electric Company. One-shot arc lamp with mass of vaporizable wire between electrodes. 3,515,928, 6-2-70, Cl. 313-184.

Kershaw, John Knox, to Marmon Group, Inc., mesne. Convertible rail-highway head block assembly. 3,503,339, 3-31-70, Cl. 105-215.

Kershaw, John Knox, to Marmon Group, Inc., The, mesne. Railway track broom. 3,533,121, 10-13-70, Cl. 15-55.

Kershaw Manufacturing Company, Incorporated: *See—*
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Kershaw, Robert W.; and Lubbock, Frederick J., to Balm Paints Limited. Aqueous coating compositions. 3,514,421, 5-26-70, Cl. 260-29.6

Kershaw, Stanley S., Jr., to McGraw-Edison Company. Lightning arrester sparkover control. 3,515,934, 6-2-70, Cl. 315-36.

Kershaw, William R.: *See—*
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Kershner, Carl J.; and Ellis, Robert E., to United States of America, Atomic Energy Commission. Purification of polonium. 3,544,307, 12-1-70, Cl. 75-84.1

Kershner, Osborn A., to Lambert Brake Corporation, mesne. Disc brake including automatic adjusting mechanism. 3,489,253, 1-13-70, Cl. 188-196.

Kershner, Stephen W.; and Owen, Kenneth, said Owen assor. to Delta Electronics, Inc. Switch plunger operating mechanism with microswitch actuating cam rollers and last motion means. 3,500,004, 3-10-70, Cl. 200-18.

Kersnar, Paul W.; and Taormina, Samuel, to Progressive Products Co. Less than fully alkylated hydroxy alkyl ethylene diamine as a cleaning composition, and for method of cleaning and sequestering metal ions. 3,494,870, 2-10-70, Cl. 252-152.

Kersnar, Paul W.; and Taormina, Samuel, to Progressive Products Co. Chelating and cleaning compound and method. 3,515,673, 6-2-70, Cl. 252-152.

Kersnar, Paul W.; and Taormina, Samuel, to Progressive Products Co. Less than fully alkylated hydoxy alkyl ethylene diamine. 3,524,883, 8-18-70, Cl. 260-584.

Kerst, Al F., to Monsanto Company. Organo-amino-polyphosphonates as flame retardants for polymerr. 3,541,046, 11-17-70, Cl. 260-45.8

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Kerstetter, Donald R.; and Montgomery, Samuel J., to Sylvania Electric Products, Inc. Anode electrode fabrication. 3,530,559, 9-29-70, Cl. 29-25.17

Kersting, Raymond J., to Wagner Electric Corporation. Control valve. 3,492,051, 1-27-70, Cl. 303-6.

Kertzman, Jack, to Du Pont de Nemours, E. I., and Company. Generation of accurately known vapor concentrations by permeation. 3,521,865, 7-28-70, Cl. 261-95.

Kervenski, Irene R.; and Stahl, Clarence R., to GAF Corporation. Stabilized aqueous solutions of alkyl vinyl ether- unsaturated polybasic acid copolymers. 3,531,427, 9-29-70, Cl. 260-29.6

Kerwin, James F., to Smith Kline & French Laboratories. 4-Alkoxyestradiols. 3,496,168, 2-17-70, Cl. 260-239.55

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Kerwin, Richard M.; Dvonch, William; and Alburn, Harvey E., to American Home Products Corporation. Derivatives of 7-aminocephalosporanic acid. 3,522,250, 7-28-70, Cl. 260-243.

Kerwin, Robert E., to Bell Telephone Laboratories, Incorporated. Photomask modification and registration test methods. 3,506,442, 4-14-70, Cl. 96-41.

Kerwin, Robert E., to Bell Telephone Laboratories, Incorporated. Photoresist method and products produced thereby. 3,520,683, 7-14-70, Cl. 96-35.1

Kerwin, William J.: *See—*
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Kerwood, Joseph E.: *See—*
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Eichholz, Gunter; and Kerzel, Horst,3,545,098.

Kes, William; Kroll, Arthur W.; and Herron, William L., to Veeder Industries, Inc. Pulse generating device. 3,543,008, 11-24-70, Cl. 235-92.

Kesamaru, Toshinobu; and Morita, Osamu, to Mitsui Petrochemical Industries, Ltd. Process for the preparation of aromatic carboxylic acids. 3,507,914, 4-21-70, Cl. 260-524.

Kesenholz, Felix: *See—*
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Keshari, Hossein R.; and Mahoney, William F., to Owens-Illinois, Inc. Glass composition and method. 3,523,779, 8-11-70, Cl. 65-134.

Keshishian, Vahe, to North American Rockwell Corporation. Alpha-particle-emitting radioisotope generator. 3,515,875, 6-2-70, Cl. 250-106.

Kesinger, Charles W., to Lundberg Concrete Pipe Co., Inc. Transformer housing and vented cover assembly. 3,530,781, 9-29-70, Cl. 98-101.

Keskinen, Lauri K.: *See—*
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Keskkula, Henno: *See—*
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Kesler, Carl C.; Carey, Paul L.; and Wilson, Oliver G., to Penick & Ford, Limited. Sugar products prepared from hydroxypropylated starch. 3,505,110, 4-7-70, Cl. 127-29.

Kesler, Martin Luther; and Bann, Robert Francis, to American Cyanamid Company. Acid red dye solution. 3,551,088, 12-29-70, Cl. 8-41.

Kesler, Raymond B.; and Hurtig, Roy V. Motor driven portable dipole antenna. 3,508,274, 4-21-70, Cl. 343-758.

Kesler, William C.; and Ermer, Joseph W., Jr., to Crown Cork & Seal Company, Inc. Foil closure for plastic containers. 3,517,848, 6-30-70, Cl. 215-43.

Kesling, Keith K.; and Livesay, J. D., to General Motors Corporation. Height adjustable caster mechanism. 3,534,430, 10-20-70, Cl. 16-34.

Kesling, Peter C. Buccal tube insert. 3,494,034, 2-10-70, Cl. 32-14.

Kesling, Peter C. Bypass clamp for orthodontic bracket. 3,497,954, 3-3-70, Cl. 32-14.

Kesling, Peter C. Orthodontic appliance. 3,510,946, 5-12-70, Cl. 32-14.

Kesling, Peter C. Buccal tube assembly. 3,526,961, 9-8-70, Cl. 32-14.

Kessel, John Delbert, to Bell, Dale V. Ampule for hypodermic syringes. 3,543,755, 12-1-70, Cl. 128-272.

Kessel, John E. Slip form paver. 3,517,590, 6-30-70, Cl. 94-46.

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Kesselman, Samuel A. Machine for continuously making fillings for sandwiches. 3,513,784, 5-26-70, Cl. 107-1.

Kesselring, Carl G. Automobile glare visor. 3,534,999, 10-20-70, Cl. 296-97.

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Kesselring, Fritz, to Siemens Aktiengesellschaft. Solenoid coil drive for synchronous circuit breakers using short circuited winding portion. 3,491,315, 1-20-70, Cl. 335-19.

Kesselring, Fritz, to Siemens Aktiengesellschaft. Electrical resistors having alcohol-water coolant. 3,495,204, 2-10-70, Cl. 338-231.

Kesselring, Fritz; and Aumayer, Hansruedi, to Siemens Aktiengesellschaft, and I-T-E Imperial Corporation, mesne. High voltage gas blast switch having upstream valves for control of gas movement. 3,541,285, 11-17-70, Cl. 200-148.

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Kessler, Adriaan; and Pflaumer, Phillip F., to Procter & Gamble Company, The. Process for the preparation of sulfonated detergent composition. 3,488,384, 1-6-70, Cl. 260-513.

Kessler, Alec; and Rosen, Theodore. Continuous towel ironing structure. 3,526,981, 9-8-70, Cl. 38-2.

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Kessler, Arthur; Kreiling, Rudolf; and Schwetz, Paul, to Leitz, Ernst, G.m.b.H. Automatic focusing device for slide projector. 3,537,791, 11-3-70, Cl. 353-101.

Kessler, Bernard V.: *See—*
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Kessler, Bernard V., to United States of America, Navy. Simple traveling wave laser using total- internal-reflection resonator. 3,500,240, 3-10-70, Cl. 331-94.5

Kessler, Franz: *See—*
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Kessler, George: *See—*
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Kessler, Gerald. Abrasion-resistant rigid-flexible weatherstrip. 3,535,824, 10-27-70, Cl. 49-488.

Kessler, Harry H.; and Moore, William H. Metal treating device. 3,503,597, 3-31-70, Cl. 266-34.

Kessler, Herbert K.: *See—*
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Kessler, Leland L., to Westinghouse Electric Corporation. Real load unbalance protection circuit for alternating current power sources connected for parallel operation. 3,539,820, 11-10-70, Cl. 307-87.

Kessler, Milton. Plastic ball bearings. 3,501,208, 3-17-70, Cl. 308-190.

Kessler, Milton. Push-pull dispensing cap with double seal. 3,511,420, 5-12-70, Cl. 222-525.

Kessler, Newlin W.; and Berg, Orville C., to American Machine & Foundry Company. Welded joint for pipe having internal coating. 3,508,766, 4-28-70, Cl. 285-21.

Kessler, Robert G., to Rap Industries Incorporated. Easy opening heat sealed package. 3,511,436, 5-12-70, Cl. 229-66.

Kesslin, George; Orlando, Charles M.; and Blohm, Herbert W., to Kay-Fries Chemicals, Inc. Degraded vinyl chloride resins decolorized with trialkyl orthoformates. 3,546,188, 12-8-70, Cl. 260-86.3

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Kestermeier, William J., to Bendix Corporation, The. Caliper type disc brake including pivoted sections. 3,542,159, 11-24-70, Cl. 188-72.6

Kestner, Harold R.; and Gorman, John P., to General Electric Company. Semi-conductor welding circuit. 3,493,718, 2-3-70, Cl. 219-131.

Keszler, Charles L.; and Stanwood, William R. Apparatus for manufacturing sausage. 3,502,018, 3-24-70, Cl. 99-355.

Ketch, Frederick M.; and Barton, Ralph L., to General Foods Corporation. Process for preparing a stabilized bakery product. 3,492,127, 1-27-70, Cl. 99-86.

Ketcham & McDougall, Inc.: *See—*
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Ketchum, Northrop H. Board game apparatus with alignable tray and object discharge means. 3,501,151, 3-17-70, Cl. 273-130.

Ketchum, Northrop H. Drape pleating apparatus. 3,547,319, 12-15-70, Cl. 223-28.

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Ketley, Arthur D., to Grace, W. R., & Co.Preparation of palladium-π-allyl complexes. 3,493,591, 2-3-70, Cl. 260-429.

Ketley, Arthur D., to Grace, W. R., & Co. 1-Cyclopropyl-1-phenyl substituted ethylene polymers. 3,497,483, 2-24-70, Cl. 260-79.5

Ketley, Arthur D., to Grace, W. R., & Co. Process for preparing monoacetin from propylene. 3,517,054, 6-23-70, Cl. 260-491.

Ketley, Arthur D., to Grace, W. R., & Co. Polymerization of propylene. 3,535,302, 10-20-70, Cl. 260-93.7

Ketner, David Clough. Sun-bathers reflector device. 3,496,941, 2-24-70, Cl. 128-372.

Keto, August I., to Westinghouse Electric Corporation. Electrical bushings. 3,504,106, 3-31-70, Cl. 174-152.

Keto, August I., to Westinghouse Electric Corporation. Electrical bushing. 3,514,529, 5-26-70, Cl. 174-153.

Keto, August I., to Westinghouse Electric Corporation. Electrical terminal providing a plurality of circuit. 3,541,231, 11-17-70, Cl. 174-152.

Keto, August I.: *See—*
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Ketola, John H.: *See—*
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Kettenmann, Rolf; and Muller-Lobeck, Eberhard, to Schoko-Buck GmbH., Firma. Device for transferring articles onto trays. 3,509,692, 5-5-70, Cl. 53-250.

Ketter, Richard P.: *See—*
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Ketterer, Stanley J., to Singer Company, The. Apparatus for use in replenishing bobbin under- thread in a lock stitch sewing machine. 3,490,402, 1-20-70, Cl. 112-184.

Ketterer, Stanley J., to Singer Company, The. Needle thread snub. 3,496,895, 2-24-70, Cl. 112-255.

Kettering Scientific Research, Inc.: *See—*
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Ketteringham, John M.; and Leffler, Amos J., to Little, Arthur D., Inc. Apparatus for removing water vapor from gases. 3,511,031, 5-12-70, Cl. 55-158.

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Kettler, Roddy E. Method of cleaning masonry. 3,505,112, 4-7-70, Cl. 134-2.

Ketzer, Manfred, to U.S. Philips Corporation, mesne. Tape magazine loading holder and locking arrangement. 3,524,651, 8-18-70, Cl. 274-4.

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Keuchel, Herbert W.; Greenwald, Emmett F.; and Kenney, Richard A., to Celanese Corporation. Pile fabric having fibrillated pile yarn and method of making same. 3,549,467, 12-22-70, Cl. 161-65.

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Keul, Robert, to Compagnie de Saint-Gobain. Phosphate opal glass. 3,498,801, 3-3-70, Cl. 106-39.

Keulemans, Aloysius Ignatius Marie, to U.S. Philips Corporation, mesne. Method of manufacturing a separating column of a vitreous material for use in an apparatus for gas chromatography. 3,531,919, 10-6-70, Cl. 55-386.

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Key, Gladys B. Multipurpose hair net. 3,505,678, 4-14-70, Cl. 2-4.

Key, Robert L., III; and Christy, Melvin G., to Liggett & Myers Incorporated. Applying menthol to tobacco in a pneumatic system. 3,548,838, 12-22-70, Cl. 131-144.

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Keyes, Marion A., IV, to Beloit Corporation. Roll temperature control. 3,489,344, 1-13-70, Cl. 236-1.

Keyes, Marion A.; and Beachler, Robert A. Automated slitting system. 3,488,479, 1-6-70, Cl. 235-151.1

Keyes, Robert W., to United States of America, Army, mesne. Image intensifier using photoconductive and electro-optic materials. 3,524,064, 8-11-70, Cl. 250-213.

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Keznickl, Eduard; Broeckl, Heinz Wilhelm; Valoh, Alfons; Schmidt, Harald; and Drahonovsky, Michael, to Vockenhuber, Karl, and Hauser, Raimund. Film feeding device. 3,542,310, 11-24-70, Cl. 242-192.

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Khajezadeh, Heshmat; and Jacob, Lewis A., Jr., to RCA Corporation. High voltage transient protection for an insulated gate field effect transistor. 3,512,058, 5-12-70, Cl. 317-235.

Khan, Amanullah R.: *See—*
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Khitrik, Spiridon Iosipovich; Gasik, Mikhail Ivanovich; and Em, Alexei Pavlovich. Method of refining ferrochrome. 3,523,021, 8-4-70, Cl. 75-28.

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Kholodnov, Evgeny Vasilievich; Stavitsky, Boris Ivanovich; Lomov, Nikolai Vasilievich; and Shevelev, Jury Alexandrovich. Machine for spark discharge working of holes in electrically conductive workpieces. 3,495,258, 2-10-70, Cl. 219-69.

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Khrenov, Konstantin Konstantinovich; Chudakov, Vyacheslav Andreevich; and Balakin, Valentin Ivanovich. Device for magnetic-and-pulse working of metals with pressure. 3,502,840, 3-24-70, Cl. 219-10.79

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Kibbe, Walter R. Upper punch socket seal for rotary tableting presses. 3,533,360, 10-13-70, Cl. 107-17.

Kibbel, William H., Jr.; and Shepherd, John A., to FMC Corporation. Method of preparing an aqueous hydrogen peroxide gel. 3,499,844, 3-10-70, Cl. 252-316.

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Kibler, Richard W., to Firestone Tire & Rubber Company, The. Method of adhering rubber to a fabric employing a novel adhesive composition. 3,547,729, 12-15-70, Cl. 156-331.

Kibler, Willis L., to McCord Corporation. Control switch for a vehicle windshield washer and wiper system contained in a turn signal actuating lever. 3,511,943, 5-12-70, Cl. 200-4.

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Kice, Jack W.: *See—*
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Kice, Jack W., to K-B Engineering Company. Diverter valve. 3,489,178, 1-13-70, Cl. 137-625.41

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Kice, Russeel W.: *See—*
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Kice, Russell W.: *See—*
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Kichline, Thomas P.; and Stahlheber, Norman Earl, to Monsanto Company. Sodium aluminum phosphates and leavening compositions containing same. 3,501,314, 3-17-70, Cl. 99-95.

Kick, Hermann; Klingler, Herbert; and Pfund, Hans, to Maier, Charles, & Cie. Switch and circuit breaker combination. 3,512,112, 5-12-70, Cl. 337-70.

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Kidby, James C., to Silentbloc Limited. Torque transmitting shaft assemblies. 3,521,464, 7-21-70, Cl. 64-11.

Kidd, Archibald Watson, to Kidd, Archie, (Designs) Limited. Combined seed and fertilizer drills for agricultural use. 3,515,315, 6-2-70, Cl. 222-193.

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Kidney, Allan James, to Lever Brothers Company. Method of preparing a collagen sausage casing. 3,505,084, 4-7-70, Cl. 99-175.

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Kidwell, Alfred S.; and Migdol, Norman R., to Inmont Corporation. Curable normally stable compositions containing cross linking agent in capsule form. 3,505,428, 4-7-70, Cl. 260-831.

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Kiesling, Charles A., to Sperry Rand Corporation. Blinking cursor for CRT display. 3,531,796, 9-29-70, Cl. 340-324.
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Kietz, Hans, to Fried Krupp Gesellschaft mit beschrankter Haftung. Echo sounder system. 3,523,276, 8-4-70, Cl. 340-3.
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Killion, Donald C. Retractable truck body cover. 3,515,428, 6-2-70, Cl. 296-100.

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Kilmarx, Louis Edward, to Scovill Manufacturing Company. Tire valve. 3,511,295, 5-12-70, Cl. 152-427.

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Kilpatrick, Lester Louis, to Du Pont de Nemours, E. I., and Company. Polymer finishing apparatus. 3,526,484, 9-1-70, Cl. 23-285.

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Kim, Bernard S.; Fetterman, Charles P.; and Walker, John Q., to Research Assistants Corporation. Automatic sample introduction system for gas analytical chromatographs. 3,498,107, 3-3-70, Cl. 73-23.1

Kim, Charles W., to Hercules Incorporated. Synthetic textile yarn. 3,500,627, 3-17-70, Cl. 57-140.

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Kim, Chung Sul Youn, to Georgia-Pacific Corporation. Drilling fluid composition containing a lignosulfonamide. 3,492,228, 1-27-70, Cl. 252-8.5

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Kim, Dong Hans; Santilli, Arthur A.; Sulkowski, Theodore S.; and Childress, Scott J., to American Home Products Corporation. Process for preparing tetra and hexahydro-5- sulfonyl-2,5-benzodiazocines. 3,496,164, 2-17-70, Cl. 260-239.

Kim, Dong H.; and Santilli, Arthur A., to American Home Products Corporation. 4,4'(Ethylenediimino) bis[2-phenylpyrimidine- 5-carboxylic acid] dialkyl esters and related compounds. 3,506,665, 4-14-70, Cl. 260-256.4

Kim, Dong H.; and Santilli, Arthur A., to American Home Products Corporation. 5-Acetamido-4-pyrimidinecarboxamides, 5-acetamido-4-pyrimidinecarboxylic acid hydrazides and related compounds. 3,517,007, 6-23-70, Cl. 260-256.4

Kim, Dong H.; and Santilli, Arthur A., to American Home Products Corporation. 1-Alkyl-6-substituted isoxazolo[3,4-d]pyrimidin-3(1H)-ones. 3,517,008, 6-23-70, Cl. 260-250.4

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Kimball, Charles B.; and Magill, Christopher A., to United States of America, Navy. Air cushion proprioceptive motion system. 3,496,650, 2-24-70, Cl. 35-12.

Kimball, Edwin N., to Sperry Rand Corporation. Fluidic respirator. 3,494,357, 2-10-70, Cl. 128-145.6

Kimball, Eugene C., to Kimball Toppers Inc. Tire changing apparatus. 3,493,029, 2-3-70, Cl. 157-1.2

Kimball, James L., to Cohu Electronics, Inc. Luminance corrector for color encoder. 3,546,370, 12-8-70, Cl. 178-5.4

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Kimberley, Walter R., to Lear Siegler, Inc. Furnace and combustion chamber therefor. 3,516,397, 6-23-70, Cl. 126-110.

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Tsuruta, Motohiro; Kimura, Hiroshiro; Koshimo, Akio; Kobayashi, Nobuhiro; Ishibashi, Matafumi; Mineda, Yoshinori; Yasuzuka, Katsumi; Kamamoto, Kentaro; and Matsuo, Takaaki,3,509,709.
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Kimura, Jun; and Ikeda, Toshimichi, to Hitachi, Ltd. Track for crawler tractors. 3,537,760, 11-3-70, Cl. 305-54.

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Kimura, Shiro; Kobayashi, Teruo; Ishige, Sadao; Hirano, Isao; and Nita, Toshiyuki, to Fuji Shashin Film Kabushiki Kaisha, and Hodogaya Kagaku Kogyo Kabushiki Kaisha. Pressure-sensitive copying paper employing a phthalein compound color-forming agent. 3,551,181, 12-29-70, Cl. 117-36.2

Kimura, Shiro; Kobayashi, Teruo; Ishige, Sadao; Katayama, Shizio; Hirano, Isao; and Nita, Toshiyuki, to Fuji Photo Film Co., Ltd. Pressure-sensitive fluorane derivative containing copying paper. 3,506,471, 4-14-70, Cl. 117-36.2

Kimura, Shiro; Kobayashi, Teruo; Ishige, Sadao; and Katayama, Shizuo, to Fuji Shashin Film Kabushiki Kaisha. Pressure sensitive fluoran derivative containing copying paper. 3,501,331, 3-17-70, Cl. 117-36.2

Kimura, Shiro; Kobayashi, Teruo; Ishige, Sadao; and Katayama, Shizuo, to Fuji Photo Film Co., Ltd. Pressure sensitive fluoran derivative copying paper. 3,514,310, 5-26-70, Cl. 117-36.2
Kimura, Sinzo; and Hosono, Hiroo, to Matsushita Electric Industrial Co., Ltd. Toasting period control devices for automatic toasters. 3,509,321, 4-28-70, Cl. 219-492.
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King, Bertell W., deceased (by King, Bertell W., Jr., executor); and Sherower, Marquerite N.; executrix. Casing unit for an instrument for measuring an elevation above water level. 3,509,766, 5-5-70, Cl. 73-290.
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King, George G.; and Kirabinos, Joseph V., to Ansul Company, The, mesne. Certain 2-[(pyridyl-3-thiocarbomoyl)-1,3- axazolidines]. 3,546,231, 12-8-70, Cl. 260-294.8
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King, Jack C., to Shaw-Walker Company, The. Apparatus for producing a weldment of thin metal. 3,515,841, 6-2-70, Cl. 219-91.
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King, James F., Jr.; and Sloan, Donald Alfred, to Bahnson Company, The. Cleaning apparatus for rotary drum filters. 3,499,267, 3-10-70, Cl. 55-290.
King, James F., to Clark Equipment Company. High lift bucket. 3,517,846, 6-30-70, Cl. 214-774.
King, James L. Milling machine attachment. 3,490,335, 1-20-70, Cl. 90-21.
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King, John O., Jr. Two-piece blind nut assembly. 3,524,489, 8-18-70, Cl. 151-41.7
King, John O., Jr.; and Marschner, Charles F. Blind fastener with expandable threaded nut. 3,521,521, 7-21-70, Cl. 85-74.
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King, Joseph W.; and McClaren, Donald L., to Cleveland Technical Center, Inc. Apparatus and method for measuring distance between spaced magnetic members. 3,515,984, 6-2-70, Cl. 324-34.
King, Julian P., Jr.; Klimmek, Norman; and Beeson, Phillip A., to North American Rockwell Corporation. Method of making composite structure. 3,538,593, 11-10-70, Cl. 29-471.1
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King, Lewis E.; Hoskinson, William C.; Annunziata, Eugene J.; Wise, Frances W.; and Pierce, Edwin B., to International Business Machines Corporation. Automatic channel apparatus. 3,488,633, 1-6-70, Cl. 340-172.5
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King, Raymond L., Jr.,; and Conger, Robert L., to United States of America, Navy. High speed analog multiplier using photocells in conjunction with neon and argon tubes. 3,495,080, 2-10-70, Cl. 235-194.
King, Raymond R., to General Motors Corporation. Commutating circuit for an inverter having controlled rectifiers. 3,544,879, 12-1-70, Cl. 321-5.
King, Reynold C., to Emerson Electric Co. Sound absorbing grille. 3,537,544, 11-3-70, Cl. 181-50.
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King, William L., to Knecht, Nathan E., mesne. Voltage rectifier and multiplier. 3,525,031, 8-18-70, Cl. 321-15.
King, William L., to Knecht, Nathan E. Stator winding having maximum of two adjacent end turns. 3,531,672, 9-29-70, Cl. 310-180.
King, William L.; King, John F.; and James, Loyal W., to McKenzie Pump Corporation, mesne. Hydraulic method and apparatus for dispensing granular material under pressure. 3,514,905, 6-2-70, Cl. 51-12.
King, William M., to Aerojet-General Corporation. Spherical anhydrous hydrazine perchlorate pellets and propellants prepared therefrom. 3,520,743, 7-14-70, Cl. 149-19.
King, William Ronald; and Thomas, William Llewelyn, to British Petroleum Company Limited, The. Method of preparation of lubricating oils. 3,516,928, 6-23-70, Cl. 208-308.
King, William R., to FMC Corporation. Production of dichloroacetaldehyde and trichloroacetaldehyde. 3,499,935, 3-10-70, Cl. 260-601.
King, Willian H., Jr., to Esso Research and Engineering Company. Integral heater piezoelectric devices. 3,531,663, 9-29-70, Cl. 310-8.9
King, Wilson T., to North American Rockwell Corporation. Method for aligning a navigation system. 3,545,092, 12-8-70, Cl. 33-226.
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Beck, Willi K., 3,513,428.
Hoenisch, Walter H., 3,511,059.
Kingberg, Arthur H., to Paper Novelty Manufacturing Company. Sheet cutting device. 3,503,292, 3-31-70, Cl. 83-355.
Kingdon, Charles Russell, to Crompton & Knowles Corporation. Yarn clamp and cutter. 3,513,883, 5-26-70, Cl. 139-122.
Kingmann-White, Inc.: *See—*
Nolte, Claude B.; and Younger, George F., 3,495,842.

Kingsbury, Albert W.; Miller, Durando; and Alexander, Gerald, to Sybron Corporation. Counter-current ion exchange with downflow contactor. 3,515,277, 6-2-70, Cl. 210-33.

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Kingsbury Machine Tool Corporation: *See—*
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Kingslake, Rudolf, to Eastman Kodak Company. Photographic objective of the Gauss type having two airspaced negative doublets. 3,537,774, 11-3-70, Cl. 350-215.

Kingslakes, Rudolf: *See—*
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Kingsley, George P.: *See—*
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Kingsley, Gordon F.; and Cram, Robert D., to High Voltage Engineering Corporation. Self shielded festoon for electron irradiation apparatus employing overlapping rollers having radiation blocking means. 3,499,141, 3-3-70, Cl. 250-49.5

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Kingston, Marjorie: *See—*
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Kington, Loring C. Tubing washer and method. 3,537,897, 11-3-70, Cl. 134-22.

Kinjo, Hisao, to Victor Company of Japan, Limited. Magnetic video recording and reproducing system and apparatus therefor. 3,535,468, 10-20-70, Cl. 179-100.2

Kinkade, Charles E.: *See—*
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Kinkade, Louis G.; and Kinkade, Sharon A. Envelope construction. 3,545,669, 12-8-70, Cl. 229-73.

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Kinkade, William A.; and McCleary, Robert E., to United States Gypsum Company. Process for the preparation of calcined gypsum. 3,527,447, 9-8-70, Cl. 263-53.

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Kinkead, Alan, to Ames, W. R., Company. Irrigation method and apparatus. 3,493,176, 2-3-70, Cl. 239-11.

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Kinkel, Lester J.; and McManus, Robert P., to United States of America, Navy. Multifrequency pulse-encoded modulation system. 3,500,317, 3-10-70, Cl. 340-146.1

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Kinnaird, Laird D.; and Casadevall, James L., to Martin-Marietta Corporation. Self-sharpening, high ballistic factor vehicle nose cap. 3,536,011, 10-27-70, Cl. 102-105.

Kinnan, Frank R., to Henkels and McCoy, Inc. Vibratory unit for cable plows. 3,528,302, 9-15-70, Cl. 74-87.

Kinnard, Kenneth F.: *See—*
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Kinnavy, James W., to Continental Can Company, Inc. Dispensing container with metering and time delay valve mechanism. 3,519,171, 7-7-70, Cl. 222-477.

Kinnavy, James W.; and Orser, Robert E., to Continental Can Company, Inc. Two compartment dispensing container for admixable products. 3,511,414, 5-12-70, Cl. 222-136.

Kinnavy, James W.; and Stec, Frederick J., to Continental Can Company, Inc. Container and closure therefor. 3,520,440, 7-14-70, Cl. 220-60.

Kinne, Hubert Josef, to Klockner-Humboldt-Deutz AG. Fastening means for electrical discharge wires. 3,527,025, 9-8-70, Cl. 55-148.

Kinnebrew, Joseph E. Footrest support. 3,528,717, 9-15-70, Cl. 312-237.

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Kinney, Alfred W., to Phillips Petroleum Company. Food container with tamper proof snap on closure. 3,544,338, 12-1-70, Cl. 99-171.

Kinney, Clark Mills, Jr. Rod reinforced type conveyor belt. 3,542,188, 11-24-70, Cl. 198-193.

Kinney, Layton C.; and Tompkins, Edwin H., to American Screen Process Equipment Company, mesne. Photoflash method of transferring information and fabricating printed circuits. 3,547,629, 12-15-70, Cl. 96-27.

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Kinney, S. P., Engineers, Inc.: *See—*
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Kinney, Theodore S. Articulated immersion heater. 3,519,795, 7-7-70, Cl. 219-310.

Kinney, Thomas D.; and Pickett, John E. P. Electron microscopy tissue processor. 3,526,203, 9-1-70, Cl. 118-7.

Kinney, William L., to Microtron Corporation. Air filter assembly and sub-assemblies. 3,494,113, 2-10-70, Cl. 55-481.

Kinnicutt, Roger, Jr., to Morgan Construction Company. Drive mechanism. 3,550,477, 12-29-70, Cl. 74-817.

Kino, Gordon S.; and Robson, Peter N., to Research Corporation. Traveling-wave solid-state amplifier utilizing a semiconductor with negative differential mobility. 3,551,831, 12-29-70, Cl. 330-5.

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Kinoshita, Koichi: *See—*
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Kinoshita, Kojiro; Suzuki, Takeo; and Okajima, Shigeki, to Shiba Electric Co., Ltd. Method and apparatus for gas laser noise reduction. 3,548,338, 12-15-70, Cl. 331-94.5

Kinoshita, Kyo: *See—*
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Kinoshita, Mashiro; and Sunada, Tsuyoshi, to Osaka Prefecture. Color radiography with the mixture of dyes containing sudan III and a dye of the group consisting of aniline blue, quinoline blue, naphthol yellow and meta methyl red. 3,517,192, 6-23-70, Cl. 250-65.

Kinoshita, Saburo, to Konishiroku Photo Industry Co., Ltd. Objective for taking and projecting pictures. 3,506,340, 4-14-70, Cl. 350-214.

Kinoshita, Tetsuo: *See—*
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Kinoshita, Tetsuo; Ito, Takashi; and Furutani, Akihisa, to Kanegafuchi Boseki Kabushiki Kaisha. Composite filaments having an improved crimpability. 3,533,903, 10-13-70, Cl. 161-173.

Kinoshita, Yozo: *See—*
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Kinsell, Robert C., to Garrett Corporation, The. Flow regulator having thrust recovery. 3,513,881, 5-26-70, Cl. 138-45.

Kinsey, Richard R., to General Electric Company. Tandem series-feed system for array antennas. 3,509,577, 4-28-70, Cl. 343-854.

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Kinsey, Ronald D.: *See—*
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Smith, Richard D.; Furlong, Dale A.; and Kinsey, Ronald D.,3,550,791.

Kinsinger, William G. Packaging material. 3,549,381, 12-22-70, Cl. 99-77.1

Kinsley, John P., to Esso Research and Engineering Company. Apparatus for forming plastic articles. 3,501,809, 3-24-70, Cl. 18-20.

Kinslow, William G., Jr., to Phillips Petroleum Company. Precision trimming of thermoformed parts. 3,523,474, 8-11-70, Cl. 83-40.

Kinsly, John P.: *See—*
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Kinsman, John W. Spring-imparting pedestal for mounting a diving board. 3,523,688, 8-11-70, Cl. 272-66.

Kint, Leonard N.; and Hanse, Albert B., to Pettibone Corporation. Hydraulic dislodger for unblocking feed chutes of rock crushers. 3,498,436, 3-3-70, Cl. 193-17.

Kinter, Malcolm L.; and Weissman, Ira, to Varian Associates. Method of splicing superconductive wires. 3,523,361, 8-11-70, Cl. 29-599.

Kintish, Irving L.: *See—*
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Kintner, Paul M., to Cutler-Hammer, Inc. Apparatus for classifying measurements according to their magnitudes. 3,488,589, 1-6-70, Cl. 324-99.

Kintner, Paul M., to Cutler-Hammer, Inc. Counting integrator for A.C. signals. 3,489,885, 1-13-70, Cl. 235-92.

Kintner, Paul M. Cutler-Hammer, Inc. Digital pulse generation system. 3,510,633, 5-5-70, Cl. 235-92.

Kintzinger, Paul R.; and Smith, Lester J., to Sinclair Research, Inc. Oscillatory pulse forming circuit. 3,524,071, 8-11-70, Cl. 307-108.

Kinyon, Brice W., to Combustion Engineering, Inc. Molten salt operated generator-superheater using floating head design. 3,545,412, 12-8-70, Cl. 122-34.

Kinzel, Walter: *See—*
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Kinzie, Richard C., Jr., to Hercules Incorporated. Vinyl chloride polymerization. 3,499,850, 3-10-70, Cl. 260-17.

Kinzler, Jack A.; and McCraw, David L., to United States of America, National Aeronautics and Space Administration. Emergency escape system. 3,490,130, 1-20-70, Cl. 29-400.

Kio Soap Co., Ltd.: *See—*
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Kiper, Gerd, to Agfa-Gevaert Aktiengesellschaft. Time control arrangement for photographic cameras. 3,487,757, 1-6-70, Cl. 95-10.

Kiper, Gerd, to Agfa-Gevaert Aktiengesellschaft. Shutter-flash system for photographic cameras. 3,509,806, 5-5-70, Cl. 95-10.

Kiper, Gerd, to Agfa-Gevaert Aktiengesellschaft. Camera with built-in exposure meter for daylight and flash photography. 3,512,463, 5-19-70, Cl. 95-10.

Kiper, Gerd, to Agfa Aktiengesellschaft. Camera shutter particularly adapted for use as diaphragm. 3,513,760, 5-26-70, Cl. 95-10.

Kiper, Gerd. Exposure controls for cameras. 3,513,761, 5-26-70, Cl. 95-53.

Kiper, Gerd; Engelsmann, Dieter; Fauth, Gunter; Karl, Horst; and Nusser, Helmut, to Agfa-Gevaert Aktiengesellschaft. Camera for operation with different sources of artificial light. 3,504,602, 4-7-70, Cl. 95-10.

Kiper, Gerd; Engelsmann, Dieter; and Pawlik, Gunther, to Agfa-Gevaert Aktiengesellschaft. Electronically controlled shutter for photographic cameras. 3,526,177, 9-1-70, Cl. 95-10.

Kiper, Gerd; and Fauth, Gunter, to Agfa-Gevaert Aktiengesellschaft. Photographic camera. 3,537,375, 11-3-70, Cl. 95-64.

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Kipers, Richard F. Bag-opening apparatus. 3,495,378, 2-17-70, Cl. 53-188.

Kipnes, Hyman J. Electrical connectors. 3,525,973, 8-25-70, Cl. 339-177.

Kipnis, Ardon Y. Continuously-adjustable variable mechanisms and machine tools incorporating same. 3,516,206, 6-23-70, Cl. 51-46.

Kipnis, Barry Stephen: *See—*
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Kipnis, Frank. Method of forming a retaining surface on a smoking device. 3,551,534, 12-29-70, Cl. 264-16.

Kipp, Robert A. Air flotation separator. 3,530,987, 9-29-70, Cl. 209-467.

Kippan, James A., to Delta Rope & Twine Limited, mesne. Synthetic twines and method of producing thereof. 3,551,280, 12-29-70, Cl. 161-175.

Kipping, Werner: *See—*
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Kirabinos, Joseph V.: *See—*
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Kirbach, Emil: *See—*
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Kirby, Arthur Francis, to Du Pont de Nemours, E. I., and Company. Reductive alkylation process for production of N-alkylated amines. 3,522,309, 7-28-70, Cl. 260-577.

Kirby, Colin Walter: *See—*
Kirby, Keith Roland Tallett; and Kirby, Colin Walter,3,496,841.

Kirby, David B., to Dow Chemical Company, The. Method of preparing crystalline sodium metasilicate. 3,532,458, 10-6-70, Cl. 23-110.

Kirby, John H., III, to Ditch Magnets, Inc. Ditch magnet. 3,498,455, 3-3-70, Cl. 209-223.

Kirby, Keith Roland Tallett; and Kirby, Colin Walter, to Kirby's (Engineers) Limited. Apparatus for creasing and/or cutting cardboard and analogous flexible sheet material. 3,496,841, 2-24-70, Cl. 93-58.2

Kirby, Thomas E., Jr.: *See—*
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Kirby, Truman. Optical apparatus for viewing the screen of a television receiver from the rear thereof. 3,498,696, 3-3-70, Cl. 350-202.

Kirby, William D. Selector valve for irrigation system. 3,533,432, 10-13-70, Cl. 137-119.

Kirby's (Engineers) Limited:*See—*
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Kirch, Andrew F., to Westinghouse Electric Corporation. Pulse-supervised transportation systems. 3,519,106, 7-7-70, Cl. 187-29.

Kirch, Paul W. Pressurized applicatory-liquid feeding and applying apparatus. 3,503,691, 3-31-70, Cl. 401-188.

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Kirche, Robert M. Portable steamer for pleated and folded fabrics. 3,526,109, 9-1-70, Cl. 68-222.

Kircher, August C., to Allied Control Company, Inc. Snag shield for magnetic torque yarn tension device. 3,499,615, 3-10-70, Cl. 242-155.

Kircher, Paul J., to Westinghouse Electric Corporation. Dual motion toothbrush. 3,546,501, 12-8-70, Cl. 310-50.

Kirchgaesser, Johannes: *See—*
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Kirchhoff, Heinrich; Pfleiderer, Gerhard; and Holle, Kurt, to Zellstoffabrik Waldhof. Method for producing 5'-mononucleotides. 3,516,907, 6-23-70, Cl. 195-28.

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Lindstedt, Kurt; and Kirchhoff, Kurt,3,517,984.

Kirchhoff, Kurt, to ISCO Optische Werke GmbH. Anamorphotic component with two pairs of oppositely oriented prisms. 3,551,029, 12-29-70, Cl. 350-182.

Kirchmayr, Rudolf; Heller, Hansjorg; and Rody, Jean, to Geigy Chemical Corporation. Spun polymer filament optically brightened with 7-v-triazolyl-coumarin compounds. 3,542,689, 11-24-70, Cl. 252-301.2

Kirchmayr, Rudolf; Peterli, Hans Jakob; and Heller, Hansjorg, to Geigy Chemical Corporation. Bis-methylene malonic acid nitriles. 3,546,270, 12-8-70, Cl. 260-465.

Kirchner, Carl Edward, Jr.; and Cooper, William Moseley, to Fiber Industries, Inc. Manufacturing a mechanically crimped yarn and products thereof. 3,530,660, 9-29-70, Cl. 57-140.

Kirchner, Carl O., to Leggett & Platt Incorporated. Helical feeding mechanism for spring assembly machine. 3,503,115, 3-31-70, Cl. 29-208.

Kirchner, Henry P. Method of strengthening alumina and spinel bodies and strengthened alumina and spinel bodies produced thereby. 3,540,915, 11-17-70, Cl. 117-47.

Kirchner, Ronald P.: *See—*
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Kirgis, Jerry B.; Lester, James M.; and Gay, Lewis L., to Beech Aircraft Corporation. Cryogenic tank supporting system. 3,487,971, 1-6-70, Cl. 220-15.

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Kirk & Blum Manufacturing Co., The: *See—*
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Kirk, Bradley S.: *See—*
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Kirk, Charles C.; Ferington, Thomas E.; and Gregorian, Razmic S., to Grace, W. R., & Co. Self-supporting laminates of flexible thermoplastic films with intermediate layer of a modified mineral filler. 3,539,437, 11-10-70, Cl. 161-162.

Kirk, Charles C.: *See—*
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Kirk, Chester H., Jr., to American Tube and Controls Incorporated. Expansion tank. 3,524,475, 8-18-70, Cl. 138-30.

Kirk, Colin John, to Martonair Limited. Fluid-operable device including a piston for controlling flow through a pair of ports. 3,533,446, 10-13-70, Cl. 137-625.66

Kirk, Harry V.; and Dufour, Robert, to Cheshire Incorporated. Mailing piece separator. 3,507,211, 4-21-70, Cl. 100-4.

Kirk, Hugh A.: *See—*
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Jagiel, Zigmund J., 3,512,204.

Kirk, James A.; and Helck, Jerry P., to Air Reduction Company, Incorporated. Gas proportioner. 3,508,567, 4-28-70, Cl. 137-98.

Kirk, James F., to D. C. Transit System, Inc. Mobile unit with removable receptacle for transporting articles. 3,490,626, 1-20-70, Cl. 214-84.

Kirk, Joseph P., to International Business Machines Corporation. Method of constructing printed circuits for subsequent completion or deletion. 3,528,048, 9-8-70, Cl. 337-401.

Kirk, Leland H., to Anaconda American Brass Company. Unitary carton and reusable shipping package therefor. 3,541,052, 11-17-70, Cl. 206-65.

Kirk, Merritt C., Jr., to Sun Oil Company. Producing high purity toluene from petroleum naphtha. 3,499,945, 3-10-70, Cl. 260-674.

Kirk, Norbert A. Limb-attachable ball paddles. 3,516,668, 6-23-70, Cl. 273-67.

Kirk, Robert S., to General Electric Company. Diamond high pressure cell. 3,509,597, 5-5-70, Cl. 18-16.5

Kirk, Russell F., to Sylvania Electric Products, Inc. Disturbance switch. 3,509,298, 4-28-70, Cl. 200-61.45

Kirk, Russell F.; and Robie, Turner A., to Sylvania Electric Products, Inc. Impact switch. 3,542,984, 11-24-70, Cl. 200-61.45

Kirk, Ted: *See—*
Goodrich, Charles Bruce; Manilla, Charles Ernest; and Kirk, Ted,3,504,895.

Kirk, Thomas E.; and Hartman, David J., to General Motors Corporation. Semiconductor voltage regulator for a generator with main and bucking field windings. 3,521,148, 7-21-70, Cl. 322-28.

Kirk, Walter B.: *See—*
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Kirkaldy, David, to Imperial Chemical Industries Limited. Polyamides. 3,544,526, 12-1-70, Cl. 260-78.

Kirkaldy, David, to Imperial Chemical Industries Limited. Process for producing polyhexamethylene suberamide. 3,549,516, 12-22-70, Cl. 260-78.

Kirkamp, Rolf; Klein, Hartmut; and Rossner, Hans Peter, to Vereinigte Flugtechnische Werke Gesellschaft mit beschrankter Haftung fruher 'Weser' Flugzeugbau/Focke-Wulf/Heinkel-Flugzeugbau. Portable ground cover for starting and landing surfaces for vertically and short-starting and landing vehicles. 3,509,800, 5-5-70, Cl. 94-13.

Kirkendall, Thomas D.; and Varadi, Peter F. Machlett Laboratories, Incorporated, The Aluminum anode power tube. 3,524,098, 8-11-70, Cl. 313-311.

Kirkendall, William D., to Weston Instruments, Inc. Potentiometers. 3,500,281, 3-10-70, Cl. 338-180.

Kirkendall, William D., to Weston Instruments, Inc. Miniaturized rotary potentiometers. 3,512,113, 5-12-70, Cl. 338-163.

Kirkendall, William D., to Weston Instruments, Inc. Potentiometers. 3,518,605, 6-30-70, Cl. 338-183.

Kirkham, Edward E., to Kearney & Trecker Corporation. Apparatus for increasing the frequency response and stability of a light detection system. 3,528,745, 9-15-70, Cl. 356-106.

Kirkham, Raymond, to Rank Organisation Limited, The. Cathode ray tube focusing arrangements. 3,496,408, 2-17-70, Cl. 315-31.

Kirkhof Manufacturing Corporation: *See—*
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Kirkland, A., & Company Limited: *See—*
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Kirkland, Charles F., to Inland Steel Company. Coolant scrap handling apparatus. 3,495,814, 2-17-70, Cl. 266-27.

Kirkland, Jim W. Therapeutic bandage. 3,529,601, 9-22-70, Cl. 128-293.

Kirkland, Joseph J., to Du Pont de Nemours, E. I., and Company. Method and apparatus for chromatographic separations with superficially porous glass beads having sorptively active crusts. 3,488,922, 1-13-70, Cl. 55-67.

Kirkland, Joseph J., to Du Pont de Nemours, E. I., and Company. Superficially porous supports for chromatography. 3,505,785, 4-14-70, Cl. 55-67.

Kirkland, Joseph T. Mechanism for feeding and driving screws. 3,526,257, 9-1-70, Cl. 144-32.

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Kirkpatrick, George Fred, to Union Carbide Corporation. Draw string bag. 3,547,341, 12-15-70, Cl. 229-63.

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Kirkpatrick, Max B.; Harvey, Andrew G.; and Sparks, John M., III. Exercising apparatus. 3,543,725, 12-1-70, Cl. 119-29.

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Kirschenbaum, Stanley. Orthodontia device. 3,533,163, 10-13-70, Cl. 32-14.

Kirschmann, John D. Feeding mechanism for seed. 3,489,321, 1-13-70, Cl. 222-268.

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Kirss, Voldemar, to Allied Chemical Corporation. Stable liquid polyisocyanate compositions. 3,522,285, 7-28-70, Cl. 260-453.

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Kish, Arthur S., to Murray Corporation. Hose assembly. 3,530,900, 9-29-70, Cl. 138-109.

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Kissen, Abbott T., to United States of America, Air Force. Oxygen consumption computer. 3,523,529, 8-11-70, Cl. 128-2.07

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Kittrell, James R., to Chevron Research Company. Hydrocarbon conversion catalyst comprising an ultra-stable crystalline zeolitic molecular sieve component, and methods for making and using said catalyst. 3,535,227, 10-20-70, Cl. 208-59.

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Kittrell, James R., to Chevron Research Company. Catalyst body consisting of physical mixture of different catalysts, one of which comprises rhenium. 3,535,231, 10-20-70, Cl. 208-60.

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Kittrell, James R.; and Sullivan, Richard F., to Chevron Research Company. Method of reducing hydrocracking activity decline rate of catalyst comprising layered crystalline clay-type aluminosilicate component. 3,535,272, 10-20-70, Cl. 252-455.

Kitz, Norbert; Lloyd, John G.; and Drage, James J., to Bell Punch Company Limited. Desk calculator for performing addition, subtraction, multiplication and division. 3,513,303, 5-19-70, Cl. 235-160.

Kitze, Theodore J., to Eastman Kodak Company. Light-developable direct-print silver halide emulsions. 3,507,657, 4-21-70, Cl. 96-94.

Kitzen, Maurice R.: *See—*
Benkert, Irwin G.; and Kitzen, Maurice R.,3,492,973.

Kiumi, Masumi: *See—*
Muto, Sakae; Koga, Akira; Sato, Shigetake; Kiumi, Masumi; Takehisa, Masanori; and Watanabe, Takashi,3,509,080.

Kiva Corporation: *See—*
Lewis, William R., 3,520,361.

Kivela, Stanley Edward. Food carrying and preparing appliance. 3,515,119, 6-2-70, Cl. 126-37.

Kivela, Stanley E. Vacuum cleaners. 3,550,182, 12-29-70, Cl. 15-323.

Kivelevich, Doris: *See—*
Dadura, James G.; and Kivelevich, Doris,3,528,917.

Kivelevich, Doris; Dadura, James G.; and Eckert, George W., to Texaco Inc. Smoke suppressant fuel composition. 3,499,742, 3-10-70, Cl. 44-76.

Kivlen, John A.: *See—*
Pamphilis, Nicholas C.; and Kivlen, John A.,3,527,832.

Kiwak, Robert S.: *See—*
Ahern, Charles J.; Higgins, Paul T.; and Kiwak, Robert S.,3,550,605.
Erwin, Louis R.; Kiwak, Robert S.; and Vos, Clarence E.,3,506,024.

Kiwak, Robert S., to Bendix Corporation, The. Laminated vortex amplifier with a pickoff formed in one lamina. 3,494,372, 2-10-70, Cl. 137-81.5

Kiwiet, Johannes, to Inland Steel Company. Spray coating apparatus. 3,532,072, 10-6-70, Cl. 118-301.

Kiyama, Masao: *See—*
Iwase, Keizo; Takada, Toshio; and Kiyama, Masao,3,542,685.

Kiyasu, Zeniti: *See—*
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Kiyata, Hiromitsu: *See—*
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Kiyomiya, Shinichiro: *See—*
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Kiyoshi Miyazaki: *See—*
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Kiyoura, Raisaku, to Mitsui Toatsu Chemicals Incorporated. Method of treating exhaust gases containing sulfur dioxide. 3,508,868, 4-28-70, Cl. 23-119.

Kjaer, Ian; and Neuber, Dieter, to Arenco Aktiebolag. Device in a machine for producing cigar bunches or cigars. 3,545,454, 12-8-70, Cl. 131-61.

Kjeldsen, Kjeld: *See—*
Enemark, Arne F.; Valbjorn, Knud V.; and Kjeldsen, Kjeld,3,524,388.

Kjellander, Gunnar: *See—*
Lindgren, Owe; Kjellander, Gunnar; and Skoog, Lennart,3,513,259.

Kjellberg, Burre I., to Diatemp, Inc. Vapor actuated safety thermostat. 3,511,970, 5-12-70, Cl. 219-331.

Kjellberg, Burre I., to Diatemp, Inc. Oven control system. 3,519,797, 7-7-70, Cl. 219-413.

Kjellberg Elektroden & Maschinen G.m.b.H.: *See—*
Haase, Lothar; and Pochert, Rudolf, 3,489,876.
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Chao, Tai S.; and Kjonaas, Manley,3,535,243.
Chao, Tai S.; Kjonaas, Manley; and Hoffman, William D.,3,523,084.

Kjos, Magne Jarle, to Burroughs Corporation. Coaxial tape storage reel drive module. 3,498,569, 3-3-70, Cl. 242-193.

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Klages, Karl-Heinz; and Weisbrod, Georg Friedrich, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of lightweight concrete. 3,547,412, 12-15-70, Cl. 259-148.

Klahn, Richard: *See—*
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Klaiber, Morton H.; and Pater, Anton S., to Union Carbide Corporation. Aqueous lubricants for metal working. 3,501,404, 3-17-70, Cl. 252-49.5

Klamer, Reuben B. Self-storing multicharactered toy. 3,520,078, 7-14-70, Cl. 46-22.

Klamka, Norbert: *See—*
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Klamm, Robert L., to Conductron Corporation. Light sensitive apparatus for preventing flameout in combustion engines. 3,504,490, 4-7-70, Cl. 60-39.09

Klamp, Paul. Subfloor conveyor tow trucks. 3,503,338, 3-31-70, Cl. 104-172.

Klanberg, Frank Karl, to Du Pont de Nemours, E. I., and Company. Group VIII metal complexes containing two complexed $B_{10}H_{12}^{-2}$ ions. 3,547,963, 12-15-70, Cl. 260-429.

Klancnik, Adolph V. Fixtures for machine tools. 3,542,355, 11-24-70, Cl. 269-87.3

Klancnik, Adolph V. Machine tools. 3,545,019, 12-8-70, Cl. 10-107.

Klang, Daniel M., to Potter Instrument Company, Inc. Proportional reel servo system. 3,488,696, 1-6-70, Cl. 242-190.

Klang, Daniel M., to Potter Instrument Company, Inc. Reel servo system. 3,545,700, 12-8-70, Cl. 242-55.12

Klanica, Andrew J.: *See—*
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Klanke, Roy A. Cargo compartment cover for pick-up truck. 3,489,456, 1-13-70, Cl. 296-100.

Klanner, Rudolf; and Merkle, Josef, to Maschinenfabrik-Augsburg-Nurnberg A.G. Cross country vehicles. 3,516,682, 6-23-70, Cl. 280-104.5

Klantke, Herbert; von den Benken, Henry; and Dunlap, Robert B., to Henkel, E. G., Maschinenfabrik, and Compo Industries, Inc. Heel and toe lasting apparatus. 3,523,317, 8-11-70, Cl. 12-12.

Klapper, Jacob, to RCA Corporation. Varying bandwidth frequency shift keying receiver. 3,510,779, 5-5-70, Cl. 325-320.

Klar, John: *See—*
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Klaschka, Theresa Farren, to United Kingdom of Great Britain and Northern Ireland, Minister of Technology in Her Britannic Majesty's Government of the. Redundant binary logic circuits. 3,543,048, 11-24-70, Cl. 307-204.

Klassen, Edward J. Automotive ash tray and snuffer. 3,500,835, 3-17-70, Cl. 131-235.

Klassen, Horst; and Otto, Alfred, to Bergische Stahl-Industrie. Wheel, brake members and securing means therebetween. 3,513,949, 5-26-70, Cl. 188-218.

Klassen, John: *See—*
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Klassen, Stephen L., to Thermo Electric Co., Inc. Spring loaded thermocouple with a flared tip. 3,516,872, 6-23-70, Cl. 136-221.

Klassert, Aloys, to Ulrich, Walter. Hair-inserting apparatus. 3,490,397, 1-20-70, Cl. 112-79.5

Klasson, George A.; and Mills, Justin W., to Air Products and Chemicals, Inc. Valve seat insert for gas handling equipment. 3,536,092, 10n27-70, Cl. 137-329.02
Klatchko, George A., to Automation Industries, Inc., mesne. Polariscope. 3,549,259, 12-22-70, Cl. 356-115.
Klatt, Gerhard: *See—*
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Klatte, Fred J., to Corn Products Company, mesne. Process for stimulating growth and egg production. 3,493,663, 2-3-70, Cl. 424-230.
Klatte, Henry B.: *See—*
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Klatyk, Knut, to Merck, E., A.G. Partially deactivated silicon dioxide adsorbents and method. 3,549,525, 12-22-70, Cl. 210-31.
Klauber, George. Method and apparatus for composing and decomposing pictorial representations. 3,526,983, 9-8-70, Cl. 40-106.53
Klauder, Louis T., Jr., to General Motors Corporation. Reciprocating piston engine with rhombic drive and even power intervals. 3,520,285, 7-14-70, Cl. 123-56.
Klaue, Hermann: *See—*
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Klaue, Hermann. Electric generator. 3,510,703, 5-5-70, Cl. 310-70.
Klaue, Hermann. Control mechanism for tracked vehicles. 3,543,871, 12-1-70, Cl. 180-6.7
Klaue, Hermann. Lever actuated disc brake. 3,548,974, 12-22-70, Cl. 188-73.
Klaui, Heinrich; and Rehm, Walter, to Hoffmann-La Roche Inc. Parental sulfonamide and sulfonamide potentiator combinations. 3,551,564, 12-29-70, Cl. 424-229.
Klauke, Erich; and Holtschmidt, Hans, to Farbenfabriken Bayer Aktiengesellschaft. Process for the preparation of trifluoromethyl isocyanate. 3,518,293, 6-30-70, Cl. 260-453.
Klauke, Erich; and Kuhle, Engelbert, to Farbenfabriken Bayer Aktiengesellschaft. COF-substituted-N-trifluoromethyl-phenylsulfenamides. 3,547,992, 12-15-70, Cl. 260-544.
Klauke, Erich: *See—*
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Kuhle, Engelbert; Klauke, Erich; Grewe, Ferdinand; and Kaspers, Helmut,3,499,030.
Kuhle, Engelbert; Klauke, Erich; Grewe, Ferdinand; Hammann, Ingeborg; Kaspers, Helmut; Unterstenhofer, Gunter; and Scheinpflug, Hans,3,547,970.
Klaus, Kaspar. Device for cargo trucks for transporting and lateral loading and unloading. 3,515,295, 6-2-70, Cl. 214-77.
Klaus, Kaspar. Transport vehicle. 3,523,620, 8-11-70, Cl. 214-77.
Klaus, Rolf; Tittel, Harald; and Wagner, Renate, to Institut fur Werkzeugmaschinen. Arrangement for interconnecting logical operational units for pneumatic controls. 3,516,436, 6-23-70, Cl. 137-561.
Klavsons, Uldis: *See—*
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Klayman, Arnold I.; and Genest, Leonard J., to Octronix, Inc. Bandwidth compressor and expander. 3,499,996, 3-10-70, Cl. 179-15.55
Klayman, Arnold I.; and Genest, Leonard J., to Octronix, Inc. Bandwidth compressor and expander. 3,541,266, 11-17-70, Cl. 179-15.55
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Klebanow, Bernard: *See—*
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Klebe, Elmer C., Jr., to Singer Company, The. Cord exit device. 3,508,291, 4-28-70, Cl. 15-323.
Klebe, Johann F., to General Electric Company. Linear difunctional silylamide and process therefor. 3,488,371, 1-6-70, Cl. 260-448.2
Klebert, Wolfgang: *See—*
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Klee, David J.: *See—*
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Klee, Gerhard, to Samson Apparatebau A.G. Fluid operated control methods and apparatus. 3,489,064, 1-13-70, Cl. 91-388.
Klee, Gerhard. Regulating systems. 3,543,584, 12-1-70, Cl. 73-388.
Klee, Gerhard; and Jeschke, Norbert, to Samson Apparatebau AG. Tool carrier for machine tools. 3,504,582, 4-7-70, Cl. 82-24.
Klee, Helmut: *See—*
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Klee, Helmut; Schorning, Dieter; Herget, Georg; Strauss, Georg; and Niermann, Hermann, to Knapsack Aktiengesellschaft. Process for operation of electric reduction furnaces. 3,539,695, 11-10-70, Cl. 13-34.
Klee, Maurice, to Case, J. I., Company. Bin loading device for combines. 3,549,026, 12-22-70, Cl. 214-17.
Kleemann, Alois, to Geigy Chemical Corporation. Method for improving the fastness to gas fading of dyed material. 3,495,929, 2-17-70, Cl. 8-55.
Kleemann, Alois, to Geigy Chemical Corporation. Process for making certain materials resistant to combustion gas deterioration. 3,498,811, 3-3-70, Cl. 106-176.
Kleemeier, Robert H.; and Zemke, Ronald O., to Minnesota Mining and Manufacturing Company. Holder for abrasive product. 3,527,001, 9-8-70, Cl. 51-358.
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Klees, Robert M., to North American Rockwell Corporation. Multisensor correlation apparatus. 3,501,762, 3-17-70, Cl. 343-6.
Klees, William B.J.: *See—*
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Kleesattel, Claus. Substantially non-destructive fatigue testing by localized stressing at ultrasonic frequencies. 3,490,270, 1-20-70, Cl. 73-67.3
Kleesattel, Claus; and Eisenmenger, Wolfgang. Fatigue testing and apparatus therefor. 3,529,465, 9-22-70, Cl. 73-67.3
Klei, Herbert E., Jr.: *See—*
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Kleiber, Armin; and Schmidt, Wilfried. Portable slab mold. 3,519,243, 7-7-70, Cl. 249-119.
Kleid, Robert E. Combined toy storage amusement device for children. 3,516,659, 6-23-70, Cl. 272-1.
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Kleiman, Joseph P., to Ethyl Corporation. Method of removing manganese containing deposits. 3,506,488, 4-14-70, Cl. 134-3.
Kleiman, Joseph P.; and Mack, Robert L., to Ethyl Corporation. Herbicidal organophosphorus-nitrogen compositions and method using same. 3,511,633, 5-12-70, Cl. 71-86.
Kleiman, Joseph P.; and Mack, Robert L., to Ethyl Corporation. Herbicidal organophosphorus nitrogen compositions and method using same. 3,511,634, 5-12-70, Cl. 71-86.
Kleiman, Morton. Control of apple storage scald using certain diphenylamine compositions. 3,526,518, 9-1-70, Cl. 99-154.
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Kleiman, Morton. Control of apple storage scald using certain diphenylamine compositions. 3,526,520, 9-1-70, Cl. 99-154.
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Klein, Aled. Marking machine. 3,546,779, 12-15-70, Cl. 33-36.
Klein, Alexander, deceased (by Klein, Marie H.; executrix), 4/10 to Davis, Raymond E., and 2/10 to Polivka, Milos. Hydraulic cementitious mixtures. 3,536,507, 10-27-70, Cl. 106-92.
Klein, Alfred; and Gebert, Frank X., said Klein assor. to ABC Industries, Inc. Blade grinder. 3,495,361, 2-17-70, Cl. 51-249.
Klein, Anne. Foundation garments. 3,542,034, 11-24-70, Cl. 128-535.
Klein, Arthur, to Waldrich, H. A., G.m.b.H. Approach control for grinding machines. 3,494,079, 2-10-70, Cl. 51-165.
Klein, Bernard, to Tension Envelope Corporation. Remailable envelope. 3,498,528, 3-3-70, Cl. 229-73.
Klein, Carl F., to Johnson Service Company. Ionization chamber detection apparatus having a low voltage source means. 3,514,603, 5-26-70, Cl. 250-83.6
Klein, Carl F., to Johnson Service Company. Electrostatically driven apparatus. 3,517,225, 6-23-70, Cl. 310-6.
Klein, Carl F., to Johnson Service Company. Proximity detection system using field effect transistors. 3,543,056, 11-24-70, Cl. 307-308.
Klein, David X.: *See—*
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Klein, Edgar; Kulling, Achim; and Steinhausen, Helmut, to Titangesellschaft mbH. Process for the manufacture of titanium dioxide pigments form hydrochloric acid solutions containing titanium. 3,540,846, 11-17-70, Cl. 23-202.
Klein, Edgar; Kulling, Achim; and Steinhausen, Helmut, to Titangesellschaft mbH. Process for the manufacture of acicular rutile pigments from hydrochloric acid titanium chloride solutions. 3,549,322, 12-22-70, Cl. 23-202.
Klein, Edward: *See—*
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Klein, Ernst Gerhard. Machine tool with a movable portal. 3,523,485, 8-11-70, Cl. 90-15.

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Klein, Fred T.: *See—*
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Klein, Frederick A.: *See—*
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Klein, George: *See—*
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Klein, Georges; and Fabre, Jean L., to Compagnie Generale d'Electricite, and Electricite de France (Service National). Nozzle principally for magneto-hydrodynamic generators. 3,505,543, 4-7-70, Cl. 310-11.
Klein, Gerald I.: *See—*
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Klein, Gerardo. Guide for travelling curtains. 3,514,806, 6-2-70, Cl. 16-94.
Klein, Gerhart P., to Mallory, P. R., & Co., Inc. Method for making solid electrolytic capacitor utilizing a strip configuration. 3,530,342, 9-22-70, Cl. 29-570.
Klein, Gregory L.: *See—*
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Klein, Hans-Christof, to Teves, Alfred, G.m.b.H. Turbine-powered prime mover. 3,490,229, 1-20-70, Cl. 60-19.
Klein, Hans-Christof, to Teves, Alfred, G.m.b.H. Power brake for automotive vehicle. 3,490,231, 1-20-70, Cl. 60-54.5
Klein, Hans-Christof, to Teves, Alfred, Maschinen- und Armaturenfabrik KG. Flow regulator. 3,490,337, 1-20-70, Cl. 91-32.
Klein, Hans-Christof, to Teves, Alfred, G.m.b.H. Nonskid brake system having high-pressure accumulator and reciprocating pump. 3,532,391, 10-6-70, Cl. 303-21.
Klein, Hans-Christof, to Teves, Alfred, G.m.b.H. Eddy-current tachometers for vehicular brake systems and the like. 3,549,924, 12-22-70, Cl. 310-168.
Klein, Hans-Christof; and Knapp, Wilhelm, to Teves, Alfred, GmbH. Hydrodynamic brake. 3,489,252, 1-13-70, Cl. 188-90.
Klein, Hans-Christof; and Schrader, Gert, to Teves, Alfred, G.m.b.H. Dual-compartment master cylinder liquid-level indicator. 3,531,767, 9-29-70, Cl. 340-52.
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Klein, Jeshayahu. Portable viewer for micro-film. 3,543,424, 12-1-70, Cl. 40-31.
Klein, Kal, to Hassia Verpackungsmashinen G.m.b.H. Packaging containers as well as procedure and devices for their manufacture. 3,512,332, 5-19-70, Cl. 53-30.
Klein, Karl, & Sohn: *See—*
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Klein, Karl-Heinz, to Klein, Karl, & Sohn. Apparatus for regenerating the filters of a two-column complete-desalination plant. 3,487,936, 1-6-70, Cl. 210-191.
Klein, Keith W., to General Electric Company. Electric circuit breaker with bimetallic strip protective means. 3,548,358, 12-15-70, Cl. 337-83.
Klein, Keith W.; and Palmieri, Joseph M., to General Electric Company. Circuit breaker with novel terminal strap. 3,534,195, 10-13-70, Cl. 200-166.
Klein, Kenneth D.; and Wolf, Robert A., to Motorola, Inc. Automatic tape head indexing device. 3,502,340, 3-24-70, Cl. 274-4.
Klein, Klaus; and Verheyden, Luc, to European Atomic Energy Community (Euratom). Apparatus for producing calibrated leaks. 3,516,278, 6-23-70, Cl. 73-1.
Klein, Klaus; and Verheyden, Luc, to European Atomic Energy Community (Euratom). Ring seal. 3,542,380, 11-24-70, Cl. 277-180.
Klein, Klaus: *See—*
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Klein, Louis E., to Parkline Corporation. Modular decorative wall construction. 3,550,340, 12-29-70, Cl. 52-312.
Klein, Louis M. Cover for beaded cylindrical beverage container. 3,527,375, 9-8-70, Cl. 220-42.
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United States of America,National Aeronautics and Space Administration, Administrator, 3,507,704.
Klein, Milton; and Walsh, Richard A., to Bell Telephone Laboratories, Incorporated. Call forwarding equipment for operators. 3,542,961, 11-24-70, Cl. 179-18.
Klein, Nicholas; and Levy, Yeshaye. Smoke cleaning apparatus. 3,487,620, 1-6-70, Cl. 55-222.
Klein, Norbert H.; and Klein, Theresa H. Safety device. 3,532,381, 10-6-70, Cl. 297-388.
Klein, Norman E., to Deering Milliken Research Corporation. Method and apparatus for making a selvage. 3,506,518, 4-14-70, Cl. 156-269.
Klein, Norman E., to Deering Milliken Research Corporation. Method and apparatus for handling yarn. 3,534,452, 10-20-70, Cl. 28-1.5
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Knemeyer, Siegfried. System for controlling and stabilizing an aircraft in yaw. 3,528,633, 9-15-70, Cl. 244-77.

Knemeyer, Siegfried: *See—*
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Knepper, Jay C., Jr.: *See—*
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Knerr, Barclay R.: *See—*
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Knerr, Reinhard H., to Bell Telephone Laboratories, Incorporated. Thin film Y-junction circulator having significant shunt capacitance associated with each center conductor. 3,538,459, 11-3-70, Cl. 333-1.1

Kness, Francis J. Air terminal dock. 3,541,743, 11-24-70, Cl. 52-64.

Knetsch, Georg, to Leitz, Ernst, G.m.b.H., Firma. Three lens objective with good correction of the secondary spectrum. 3,536,379, 10-27-70, Cl. 350-177.

Knezo, John, Jr., to Bell Telephone Laboratories, Incorporated. Cable securing clip. 3,508,730, 4-28-70, Cl. 248-73.

Knibb, Leroy H. Atomizing head and bottle combination for a liquid hair spray or the like. 3,491,951, 1-27-70, Cl. 239-346.

Knibb, Roger G., to Simon-Hartley Limited. Sludge treatment apparatus and method. 3,493,494, 2-3-70, Cl. 210-5.

Knibbe, David E.: *See—*
Averink, Jan W. Aeyelts; Kok, Petrus J.; and Knibbe, David E.,3,527,736.

Knibbe, David E.; and Kelly, John G. J., to Shell Oil Company. Process for producing a leather substitute. 3,494,781, 2-10-70, Cl. 117-63.

Knibiehly, Earle M.; and Hazzard, John Russell, to Logetronics Inc. Wide film processor transport systems. 3,492,933, 2-3-70, Cl. 95-94.

Knickerbocker, Karl. Magazine vending machine. 3,536,231, 10-27-70, Cl. 221-155.

Knickerbocker Metal Guild, Inc.: *See—*
Springer, Leonard; and Lambert, Abraham D., 3,517,660.

Kniege, Wilfried: *See—*
Schnurrbusch, Karl; and Kniege, Wilfried,3,551,382.

Kniel, Ludwig, to Lummus Company, The. LNG refrigerant for fractionator overhead. 3,524,897, 8-18-70, Cl. 260-683.

Kniel, Ludwig, to Lummus Company, The. Regasification of liquefied natural gas at varying rates with ethylene recovery. 3,548,024, 12-15-70, Cl. 260-683.

Kniel, Wolfgang: *See—*
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Kniepkamp, Alberto E.: *See—*
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Knieriem, Herman, Jr.: *See—*
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Kniese, Fritz, to Industrie-Werke Karlsruhe Aktiengesellschaft. Device for conveying goods to and from a vacuum container or a pressure container. 3,507,407, 4-21-70, Cl. 214-17.

Kniff, Thomas J., to Kennametal Inc. Pick-type mining bit with support block having rotatable seat. 3,499,685, 3-10-70, Cl. 299-86.

Kniff, Thomas J., to Kennametal Inc. Pick-type mining tool. 3,512,838, 5-19-70, Cl. 299-86.

Kniffin, Larry E., to Du Pont de Nemours, E. I., and Company. Spray drying of titaniumdioxide. 3,520,710, 7-14-70, Cl. 106-300.

Knight, Allan R.: *See—*
Mc Intyre, John S.; and Knight, Allan R.,3,546,213.
McIntyre, John S.; and Knight, Allan R.,3,509,177.
McIntyre, John S.; and Knight, Allan R.,3,511,856.
McIntyre, John S., Jr.; and Knight, Allan R.,3,511,892.

Knight, Basil Edward, to C.A.V. Limited. Liquid fuel pumping apparatus. 3,547,092, 12-15-70, Cl. 123-140.

Knight, Charles A., to TRW Inc. Fluid pressure actuated linear force generating means. 3,529,417, 9-22-70, Cl. 60-26.1

Knight, Chesterton S., to Knight, Geo., & Co., Inc. Cradle heel insole molding machine. 3,496,583, 2-24-70, Cl. 12-21.

Knight, David W., to U.S. Baird Corporation, The. High speed composite cam. 3,541,883, 11-24-70, Cl. 74-567.

Knight, Donald L.: *See—*
Mills, Harold E.; and Knight, Donald L.,3,542,107.

Knight, Earl K.: *See—*
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Knight, Geo., & Co., Inc.: *See—*
Knight, Chesterton S., 3,496,583.

Knight, George R., Jr.; Lafont, Leopoldo C.; and Penney, Norman W., to McMullen, John J., Associates, Inc. Container transporting and handling system. 3,494,486, 2-10-70, Cl. 214-15.

Knight, J. B., Co., Inc., The: *See—*
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Knight, Jack P., to Phillips Petroleum Company. Apparatus for producing carbon black. 3,523,757, 8-11-70, Cl. 23-259.5

Knight, John Francis: *See—*
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Knight, John V.; McGowan, Kenneth T.; and McGowan, Richard J. Guard member for phonograph record rack. 3,497,075, 2-24-70, Cl. 211-40.

Knight, John W., to Sani-Systems, Inc. Refuse collection vehicle. 3,516,562, 6-23-70, Cl. 214-302.

Knight, John W., to Sani-Systems, Inc. Refuse collecting and dispensing vehicle. 3,542,225, 11-24-70, Cl. 214-508.

Knight, Lee H., Jr.: *See—*
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Knight, Mark Berwyn, to RCA Corporation. Regulated high voltage power supply. 3,519,741, 7-7-70, Cl. 178-7.5

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Knight, Robert C., to Marathon Oil Company. Fluid separator. 3,536,254, 10-27-70, Cl. 233-21.

Knight, Robert F.: *See—*
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Knight, Rogers Evert; Smith, Leslie William; and Harris, Leonard, to Norgren, C. A., Limited. Air filtration apparatus. 3,527,027, 9-8-70, Cl. 55-275.

Knight, Ronald George; Butcher, John Anthony Weeks; Pullum, Geoffrey George; and Willson, Michael John, to International Standard Electric Corporation. Four wire telephone system using phantom signaling circuit. 3,517,133, 6-23-70, Cl. 179-18.

Knight, Sheldon A., to Quantio Industries, Inc. Apparatus for tracking an infrared radiation gradient and readout means therefor. 3,495,085, 2-10-70, Cl. 250-83.3

Knight, Sheldon A., to American Standard Inc. Star field observation apparatus having reticle with exponentially varying optical transmittivity and mirror sweeping the star field across the mirror at exponentially varying velocity. 3,551,680, 12-29-70, Cl. 250-203.

Knight, Sheldon A.: *See—*
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Heller, Kenneth G.; Knight, Sheldon A.; and Snyder, William,3,519,823.

Knight, Sidney C., to Instructomatic, Inc. Instant response system for language laboratory and method. 3,538,625, 11-10-70, Cl. 35-35.

Knight, Stephen; and Riley, Terence J., to Bell Telephone Laboratories, Incorporated. Semiconductor device fabrication processes. 3,535,772, 10-27-70, Cl. 29-578.

Knight, Stephen; and Uenohara, Michiyuki, to Bell Telephone Laboratories, Incorporated. Methods for making semiconductor devices. 3,490,140, 1-20-70, Cl. 29-576.

Knight, Stiling F.: *See—*
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Knight, Verran Lane. Water boosted shotshell. 3,491,690, 1-27-70, Cl. 102-42.

Knightly, William H.; and Lensack, Gabriel P., to Atlas Chemical Industries, Inc. Method for improving yeast-raised baked products. 3,547,655, 12-15-70, Cl. 99-91.

Knights, Douglas Sydney, to B & R Relays Limited. Electric stepping switches. 3,544,851, 12-1-70, Cl. 317-139.

Knights, Peter Brian; Dingley, Roger Gavin; and Shannon, Arthur Percy, to International Synthetic Company Limited, The. Particle size measuring and recording apparatus. 3,536,899, 10-27-70, Cl. 235-92.

Knippel, Willis H., to Pullman Incorporated. Coupler centering arrangement. 3,542,211, 11-24-70, Cl. 213-20.

Knippenberg, Wilhelmus Franciscus: *See—*
Basart, Johan Charles Marie; Knippenberg, Wilhelmus Franciscus; and Verspui, Gerrit,3,546,032.

Knippenberg, Wilhelmus Franciscus; and Neelen, Gregorius Thedorus Maria, to U.S. Philips Corporation, mesne. Slide-spark electrode system. 3,522,465, 8-4-70, Cl. 313-131.

Knippenberg, Wilhelmus Franciscus; and Verspui, Gerrit, to U.S. Philips Corporation. Method of manufacturing semiconductor devices. 3,521,350, 7-21-70, Cl. 29-572.

Knippenberg, Wilhelmus Franciscus; and Zalm, Pieter, to U.S. Philips Corporation, mesne. Microheating elements, more particularly for cathodes of electron tubes. 3,495,120, 2-10-70, Cl. 313-270.

Knipper, Francis E. Method and apparatus for making window frames. 3,509,250, 4-28-70, Cl. 264-219.

Knipple, Warren R.: *See—*
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Knirsch, Herbert, to Schlumberger Overseas Messgeratebau und Vertrieb GmbH. System for switching high-frequency signal sources. 3,533,019, 10-6-70, Cl. 333-7.

Kniskern, Philip N. Fishing rod attachment. 3,533,181, 10-13-70, Cl. 43-25.

Knit-All Research AG: *See—*
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Knittel, Werner. Envelope with adhesive closure for open mailing. 3,489,332, 1-13-70, Cl. 229-80.

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Knobloch, James O., to Standard Oil Company. Phenylindane monocarboxylic acids. 3,523,134, 8-4-70, Cl. 260-515.

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Knochel, William J.; and Skwirut, Henry, to Westinghouse Electric Corporation. Ceramic discharge lamp having a flexible metal electrode connector. 3,497,756, 2-24-70, Cl. 313-331.

Knochel, William J.; and Wollentin, Robert W., to Westinghouse Electric Corporation. Flexible electroluminescent lamp with dual-purpose metallized plastic film component. 3,497,750, 2-24-70, Cl. 313-108.

Knocke and Associates, Inc.: *See—*
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Knoess, Walter: *See—*
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Knoester, Carel Jacobus; and Seegers, Henricus Maria Wilhelmus, to Chemische Fabriek L. van der Grinten N.V. Diazonium compounds and diazotype materials containing them. 3,520,692, 7-14-70, Cl. 96-91.

Knoevenagel, Kurt; and Himmelreich, Rolf, to Spiess, C. F., & Sohn Grunstaat. 3,6-Dioxo-4-pyridazine acetic acid derivatives. 3,491,095, 1-20-70, Cl. 260-250.

Knohl, Friedrich Karl, to Illinois Tool Works Inc. Concrete insert. 3,545,152, 12-8-70, Cl. 52-367.

Knohl, Herbert: *See—*
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Knohl, Herbert, to Kendall Company, The. Tubular-knitted elastic stocking with differently knitted instep and heel. 3,546,900, 12-15-70, Cl. 6-185.

Knoke, Jurgen: *See—*
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Knolinski, Robert E.: *See—*
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Knoll A.-G.: *See—*
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Knoll A.G. Chemische Fabriken: *See—*
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Knoll, David. Baseboard heater. 3,551,642, 12-29-70, Cl. 219-368.

Knoll, Erwin, to Guhl & Schreibler A.G. Device for dispensing strip elements. 3,527,382, 9-8-70, Cl. 221-73.

Knoll, Herbert: *See—*
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Knoll, Jozsef: *See—*
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Knoll, Peter: *See—*
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Knollman, Dieter J. H., to Bell Telephone Laboratories, Incorporated. Key telephone station concentrator. 3,549,820, 12-22-70, Cl. 179-99.

Knollmueller, Karl O., to Olin Mathieson Chemical Corporation. Bis(phosphinyl) phosphinates. 3,534,125, 10-13-70, Cl. 260-932.

Knollmuller, Maximilian: *See—*
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Knomark Inc.: *See—*
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Knopf, Robert J.: *See—*
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Knorr, Gordon Dayton, to Global Marine Inc. Drilling rig floor structure. 3,498,392, 3-3-70, Cl. 175-5.

Knorr, Tilo; and Ziprian, Ingo, to VEB Strickmaschinenbau Karl-Marx-Stadt. Apparatus for breaking or forcing out the foot portions of pattern sinkers for jacquard knitting machines. 3,542,269, 11-24-70, Cl. 225-97.

Knorr-Bremse G.m.b.H.: *See—*
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Falke, Erich, 3,512,497.
Rittler, Eugen, 3,498,680.
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Knorre, Helmut; Meyer-Simon, Eugen; Kallrath, Gottfried; and Biegler, Hanns, to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler. Process for the production of electricity conducting surfaces on a non-conducting support. 3,546,011, 12-8-70, Cl. 117-212.

Knorring, Richard T.: *See—*
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Knotek, Otto, to Societe des Soudures Castolin S.A. Brazing alloy. 3,539,339, 11-10-70, Cl. 75-134.

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Knoth, Walter H., Jr., to Du Pont de Nemours, E. I., and Company. Molecular complexes of ruthenium with hydrogen and nitrogen. 3,538,133, 11-3-70, Cl. 260-429.

Knoth, Walter H., Jr., to Du Pont de Nemours, E. I., and Company. C-aminododecahydromonocarbaundecarborates. 3,542,866, 11-24-70, Cl. 260-558.

Knothe, Erich Emil; Billin, Eckhard; and Malcher, Franz Josef, to Sartorius-Werke, G.m.b.H. Weighing machine which gives a signal when a specific position of measuring is exceeded. 3,550,703, 12-29-70, Cl. 177-45.

Knothe, Erick; Billin, Eckhard; and Melcher, Franz-Josef, to Sartorius-Werke, G.m.b.H. (und vormals Gottinger Prazisionswaagenfabrik G.m.b.H.). Balance comprising capacity weights. 3,547,213, 12-15-70, Cl. 177-237.

Knott, Benjamin F.; and Suggs, Charles W., to Thomson International Company, The, mesne. Cutter blade continuously automatically adjustable responsive to change in resistance to its operation. 3,548,570, 12-22-70, Cl. 56-15.

Knott, Robert T.: *See—*
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Knotts, George F.; Beyer, Herbert K.; and Kolb, Robert C., to Amerind-MacKissic, Incorporated. Bulk delivery apparatus. 3,531,022, 9-29-70, Cl. 222-145.

Knouse, Dale R., to Vaughn Machinery Company, The. Draw block with holder mechanism. 3,496,751, 2-24-70, Cl. 72-275.

Knowles, Alvis R., to Eldon Industries, Inc. Device for heating a composition and maintaining the heated composition at a substantially constant temperature. 3,513,295, 5-19-70, Cl. 219-425.

Knowles, Bernard John: *See—*
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Knowles, David W., Jr.: *See—*
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Knowles, Edwin C.: *See—*
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Dadura, James G.; Knowles, Edwin C.; and McCoy, Frederic C.,3,507,918.
Hellmuth, Walter W.; McCoy, Frederic C.; and Knowles, Edwin C.,3,488,285.
McCoy, Frederic C.; and Knowles, Edwin C.,3,547,821.

Knowles, Hugh S. Reluctance adjustment in electromagnetic devices. 3,521,208, 7-21-70, Cl. 335-231.

Knowles, Hugh S. Transducer with shock absorbing mounting. 3,534,183, 10-13-70, Cl. 179-180.

Knowles, James A.: *See—*
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Knowles, James A. Two-stage air cooling method and apparatus. 3,521,460, 7-21-70, Cl. 62-95.

Knowles, James A. Method of and apparatus for precooling air in a facility with water used in the facility. 3,550,677, 12-29-70, Cl. 165-1.

Knowles, James A.; and Matosian, Brian H., to Knowles, James A., mesne. Electric heat conserving air conditioning system. 3,521,700, 7-28-70, Cl. 165-22.

Knowles, Keith, to British Iron and Steel Research Corporation, The. Apparatus for controlling a manipulator in association with a forging press. 3,504,512, 4-7-70, Cl. 72-22.

Knowles, Richard N., to Du Pont de Nemours, E. I., and Company. Preparation of α-aminonitriles. 3,541,132, 11-17-70, Cl. 260-465.5

Knowles, Robert A.: *See—*
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Knowles, William S.: *See—*
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Knowlton, Benjamin A., Jr. Diazo paper sensitizing process. 3,516,843, 6-23-70, Cl. 117-34.

Knowlton, David R., to United-Carr Incorporated. Fastener attaching machine with swatch feed mechanism. 3,536,241, 10-27-70, Cl. 227-17.

Knowlton, Edward A., to United-Carr Incorporated. Rotary operative vibration damping fastener. 3,534,936, 10-20-70, Cl. 248-358.

Knox, Inc.: *See—*
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Knox, James J., to Knox Laboratories, Inc. Method for manufacturing a hypodermic needle. 3,540,112, 11-17-70, Cl. 29-414.

Knox, John A., to Halliburton Company. Utilization of high strength acid on dolomite. 3,550,686, 12-29-70, Cl. 166-307.

Knox, John A.; Frederickson, Sherman E.; and Broaddus, Gene C., to Halliburton Company. Method of acidizing wells. 3,543,856, 12-1-70, Cl. 166-281.

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Knox, Leon J., Jr., to California Tube Products, Inc. Collector for automobile exhaust system. 3,516,247, 6-23-70, Cl. 60-32.

Knox, Richard L.; and Haas, Paul M., to Solitron Devices, Inc., mesne. Interference signal cancelling system for an integrating analog to digital converter. 3,526,888, 9-1-70, Cl. 340-347.

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Knox, William J., Jr., to Eastman Kodak Company. Photographic surfactant compositions. 3,514,293, 5-26-70, Cl. 96-114.5

Knox, William J., Jr., to Eastman Kodak Company. Coating aids for hydrophilic colloid layers of photographic elements. 3,539,352, 11-10-70, Cl. 96-114.5

Knox, William J., to Eastman Kodak Company. Gelatin coating compositions with N-tallow-β- iminodipropionic acid. 3,506,449, 4-14-70, Cl. 96-94.

Knudsen, Erik Stenberg, to Slagteriernes Forskningsinstitut. Methods of determining the quality of meat and devices for carrying out said methods. 3,493,774, 2-3-70, Cl. 250-226.

Knudsen, Irving E., to Westinghouse Electric Corporation. Production of uranium dioxide. 3,547,598, 12-15-70, Cl. 23-355.

Knudsen, Irving E.: *See—*
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Knudsen, John P., to Monsanto Company. Method for preparing permanently opaque fibers. 3,551,547, 12-29-70, Cl. 264-182.

Knudsen, Raymond G.; Price, James W.; and Olson, Gene E., to Snap-On Tools Corporation. Wrench sockets, socket drives and similar couplers. 3,495,485, 2-17-70, Cl. 81-121.

Knudson, Gary A. Roll forming method and machine. 3,529,461, 9-22-70, Cl. 72-181.

Knudson, Louis I.; and Frink, Richard C., to General Laboratory Associates, Inc. Permanent magnet alternator. 3,508,095, 4-21-70, Cl. 310-156.

Knudson, Selden Arthur; and Spitulnik, Michael Jay, to Eastman Kodak Company. Process for the preparation of 1,1,1-tri (substituted nitrogen-containing aryl) ethanes. 3,551,494, 12-29-70, Cl. 260-576.

Knudtson, Arthur Jewell. Control valve. 3,521,601, 7-28-70, Cl. 118-8.

Knupfer, Hans: *See—*
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Knuppel, Helmut; and Brotzmann, Karl, to Eisenwerk-Gesellschaft Marimilliantshutte m.b.H. Production of steel for electrical sheet material. 3,522,114, 7-28-70, Cl. 148-111.

Knuth, Carl, to Brunswick Corporation. Centrifugally variable diffuser for marine propeller. 3,542,487, 11-24-70, Cl. 416-93.

Knuth, Donald E., to Burroughs Corporation. Random number generator. 3,548,174, 12-15-70, Cl. 235-152.

Knuth, William H.; and Abel, Irving, to Aerojet-General Corporation. Cushion cells for fluid cushion vehicles. 3,550,718, 12-29-70, Cl. 180-121.

Knuth, William H.; and Shiflet, William F., to Aerojet-General Corporation. Retractable cushion cells for fluid cushion vehicles. 3,515,238, 6-2-70, Cl. 180-121.

Koaze, Yoshihisa; Gol, Hitoshi; and Hara, Takeshi, to Meiji Seika Kaisha, Ltd. Process for the production of acid protease by cultivation of microorganisms. 3,492,204, 1-27-70, Cl. 195-66.

Koba, Sadaaki: *See—*
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Kobard, Eckart: *See—*
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Kobaya, Hidekazu, to Nippon Kogaku K.K. Triplet type system in objective lens for microscope. 3,540,798, 11-17-70, Cl. 350-177.

Kobayakawa, Toshihiro: *See—*
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Kobayashi, Fumiaki: *See—*
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Kobayashi, Hidehiko; Sasaguri, Kiichiro; Komoto, Hiroshi; Kawashima, Sukeo; and Tanimura, Noboru, to Asahi Kasei Kogyo Kabushiki Kaisha. Production of polyesterethers. 3,551,380, 12-29-70, Cl. 260-45.7

Kobayashi, Hidehiko; Sasaguri, Kiichiro; and Tanimura, Noboru, to Asahi Kasei Kogyo Kabushiki Kaisha. Process for the production of polyesterethers. 3,547,883, 12-15-70, Cl. 260-47.

Kobayashi, Hidehko; Oizumi, Chihiro; Yamaita, Takeshi; and Okubo, Shigemasa, to Asahi Kasei Kogyo Kabushiki Kaisha. Process for preparing polyamide. 3,499,879, 3-10-70, Cl. 260-88.7

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Kobayashi, Hideya. Lightweight prestressed structural concrete member and method for manufacturing the same. 3,501,882, 3-24-70, Cl. 52-228.

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Kobayashi, Kazutsugu; and Matsumoto, Hisayuki, to Matsushita Electric Industrial Co., Ltd. Brushless DC motor. 3,529,220, 9-15-70, Cl. 318-138.

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Kobayashi, Masayasu; Kobayashi, Michiharu; and Matsushima, Mitsuyoshi, to City of Kiryu. Process for treating excrement by microorganisms and products obtained thereby. 3,546,812, 12-15-70, Cl. 47-1.4

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Kobayashi, Michiharu: *See—*
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Kohler, Josef, to Preh Elektro-Feinmechanische Werke Jakob Preh Nachf. Rotary resistance with reduction gear. 3,520,207, 7-14-70, Cl. 74-433.

Kohler, Robert D. Converter. 3,525,991, 8-25-70, Cl. 340-347.

Kohler, Robert Joseph, Jr., to Itek Corporation. Photographic film processor. 3,507,204, 4-21-70, Cl. 95-89.

Kohler, Samuel H.; and Voogd, Wierd, to Dresser Industries, Inc. Adjustable wrench. 3,546,982, 12-15-70, Cl. 81-172.

Kohler, Werner; and Kiess, Ulrich, to Daimler-Benz Aktiengesellschaft. Starter system for a diesel engine. 3,551,686, 12-29-70, Cl. 290-38.

Kohler, Wolfgang; and Fischer, Reinhard, to Dabisch, Wolfgang. Device for alerting a motorist to the danger of iced roads. 3,540,282, 11-17-70, Cl. 73-356.

Kohler, Wolfgang; Roth, Christa; and Debus, Karl-Jurgen, to Linotype G.m.b.H. Photocomposing machines. 3,509,804, 5-5-70, Cl. 95-4.5

Kohlhaas, Frank A.; and Weiss, Frederic S., to Crown Zellerbach Corporation. End-loading easy-opening shipping carton. 3,519,194, 7-7-70, Cl. 229-51.

Kohlhaas, Wilhelm; and Conrads, Johannes, to Kernforschungsanlage Julich G.m.b.H. Concave grating ultraviolet vacuum spectrometer. 3,498,720, 3-3-70, Cl. 356-51.

Kohlhagen, Walter, to Amphenol Corporation, The. Time-settable slave clock unit. 3,492,807, 2-3-70, Cl. 58-26.

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Kohll, Charles F.; and Fekkes, Nanno, to Shell Oil Company. Synthesis of polychlorobenzal chloride. 3,530,192, 9-22-70, Cl. 260-651.

Kohlmann, Hans. Process and apparatus for concentrating and drying sludge. 3,545,518, 12-8-70, Cl. 159-2.

Kohlmann, Robert L.: *See—*
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Kohls, James P., to Webb, Jervis B., Company. Vehicle guidance control system. 3,498,403, 3-3-70, Cl. 180-98.

Kohlstrunk, Arthur T., to Wheel Trueing Tool Company. Rotary diamond dressing tool. 3,491,740, 1-27-70, Cl. 125-11.

Kohn, David Harry; Narkis, Moshe; Weitzman, Jacob; and Neumann, Walter, to Technion Research and Development Foundation Limited. Method for the production of resin particles. 3,549,731, 12-22-70, Cl. 264-8.

Kohn, David Harry; and Ronel, Samuel Hanan, to Technion Research and Development Foundation Limited. Copolymerization of acrylonitrile. 3,528,951, 9-15-70, Cl. 260-78.5

Kohn, Earl J.: *See—*
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Kohn, Gerhard, to International Business Machines Corporation. Field effect transistor microwave generator. 3,516,021, 6-2-70, Cl. 331-117.

Kohn, Gustave K.; and Fenyes, Joseph G. E., to Chevron Research Company. 1,5-Di-(1-halo-1-nitroalkylthio)-2,6-dioxy pyrimidines. 3,511,838, 5-12-70, Cl. 260-260.

Kohn, Gustave K.; and Fenyes, Joseph G. E., to Chevron Research Company. N-(1-halo-1-nitroalkylthio)hydantoin. 3,532,706, 10-6-70, Cl. 260-309.5

Kohn, Gustave K.; and Fenyes, Joseph G. E., to Chevron Research Company. 1,3-Bis-(1-halo-1-nitroalkylthio) parabanic acids. 3,532,707, 10-6-70, Cl. 260-309.5

Kohn, Gustave K.; and Whipp, Arthur A., to Chevron Research Company. Polybutenes and their utilization as miticides and insecticides. 3,496,278, 2-17-70, Cl. 424-355.

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Kohn, Theodore. Pressure gauge. 3,523,451, 8-11-70, Cl. 73-146.8

Kohn, Victor. Photographic developer. 3,489,565, 1-13-70, Cl. 96-66.

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Kohner, Frank; D'Elia, Anthony N.; and Stolarz, Edward M., to Kohner Bros., Inc. Selectively manually operable educational toy. 3,538,620, 11-10-70, Cl. 35-8.

Kohner, Frank; and Stubbman, Albert, to Kohner Bros., Inc. Catapult launcher for a target grid game. 3,525,318, 8-25-70, Cl. 124-7.

Kohner, Frank; and Stubbman, Albert. Game with catapult launcher and target grid. 3,528,385, 9-15-70, Cl. 116-121.

Kohner, Frank; and Stubbman, Albert, to Kohner Bros. Inc. Twirling figurine toy. 3,546,808, 12-15-70, Cl. 46-59.

Kohnken, Donald H., to SCM Corporation. Method of bonding two porcelain coated objects. 3,551,233, 12-29-70, Cl. 156-89.

Kohnle, Josef F.: *See—*
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Kohno, Ikuhiro: *See—*
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Kohout, Frank J., to Drum Parts, Inc. Ring clamping apparatus. 3,500,530, 3-17-70, Cl. 29-229.

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Koide, Takeo; Nishitai, Iwaki; and Niimura, Masaaki, to Japanese Geon Co., Ltd., The. Method for inhibiting polymerization of conjugated dienes. 3,515,762, 6-2-70, Cl. 260-666.5

Takao, Susumu; Koide, Takeo; and Nishitai, Iwaki,3,510,405.

Koike, Eiji; Kuriyama, Ryozo; Naito, Seizo; Sugiyama, Hiroshi; and Imada, Kunihiko, to Sumitomo Chemical Company, Ltd. Process for dyeing polyolefinic materials. 3,516,779, 6-23-70, Cl. 8-32.

Koike, Eiji; Naito, Seizo; Terao, Hisashige; and Morita, Takayuki, to Sumitomo Chemical Company, Ltd. Process for pad-dyeing and printing. 3,508,855, 4-28-70, Cl. 8-32.

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Koizumi, Yutaka, to Kabushiki Kaisha Ricoh. Variable magnification exposure device for a reproduction apparatus. 3,535,037, 10-20-70, Cl. 355-57.

Koizumi, Yutaka, to Kabushiki Kaisha Ricoh. Variable magnification exposure device for a reproduction apparatus. 3,543,289, 11-24-70, Cl. 355-57.

Koizumi, Yutaka, to Kabushiki Kaisha Ricoh. Optical scanner and slit exposure device for reproduction apparatus. 3,543,290, 11-24-70, Cl. 355-65.

Koizumi, Yutaka, to Kabushiki Kaisha Ricoh. Variable magnification exposure device for a reproduction apparatus. 3,545,857, 12-8-70, Cl. 355-57.

Koizumi, Yutaka; and Kanno, Tadaaki, to Kabushiki Kaisha Ricoh. Paper feeding apparatus for electrophotography. 3,522,990, 8-4-70, Cl. 355-3.

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Kojima, Riichi, to Dainippon Ink & Chemicals, Incorporated. Cutting apparatus for pipes, round iron bars and various steel shapes. 3,494,233, 2-10-70, Cl. 83-199.

Kojima, Sachiko. Apparatus for automatic delivery and cutting of tapes. 3,494,234, 2-10-70, Cl. 83-205.

Kojima, Tadashi, to Konishiroku Photo Industry Co., Ltd. Zoom objective lens system with highly reduced secondary chromatic aberration. 3,547,523, 12-15-70, Cl. 350-184.

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Endo, Koichi; Aizawa, Kiyoto; Kojima, Takamoto; Tanaka, Hirosuke; and Watanabe, Koichi,3,551,854.

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Kojma, Yoshio; Yoshioka, Masaaki; Fushiki, Isamu; and Kishida, Toshimi, deceased (by Kishida, Hisako; administrator), said Kojma, Yoshioda, and Fushiki assors. to Konishiroku Photo Industry Co., Ltd. Thermographic process. 3,537,872, 11-3-70, Cl. 117-1.7

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Kok, Pieter W.; and Angus, William M., to U.S. Philips Corporation, mesne. Floating top X-ray table permitting close proximity between a patient supported thereon and a diaphragm placed therebeneath. 3,499,145, 3-3-70, Cl. 250-58.

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Kollar, Ernest P., to International Business Machines Corporation. Printing substance control. 3,529,546, 9-22-70, Cl. 101-426.
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Koshar, Robert J., to Minnesota Mining and Manufacturing Company. Process for the production of perfluoroalkane- sulfonyl fluorides. 3,542,864, 11-24-70, Cl. 260-543.
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Koshiyama, Hideya, to Hitachi, Ltd. Vacuum cleaner. 3,509,590, 5-5-70, Cl. 15-323.
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Kosikowski, Frank V., to Cornell Research Foundation, Inc. Sterilization of milk. 3,525,629, 8-25-70, Cl. 99-212.
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Koski, Eino J., to AMK Subsidiary Corporation, mesne. Strip crimper and cutter. 3,493,993, 2-10-70, Cl. 18-4.
Koski, John T. Transportable sectional bar. 3,532,403, 10-6-70, Cl. 312-140.2
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Kosmahl, Heinrich G., to United States of America, National Aeronautics and Space Administration. Linear magnetic brake with two windings. 3,493,797, 2-3-70, Cl. 310-93.
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Kosmis, Jan. Selector panel. 3,497,137, 2-24-70, Cl. 235-55.
Kosmo, Joseph J.; and Tucker, Elton M., to United States of America, National Aeronautics and Space Administration. Extravehicular tunnel suit system. 3,537,668, 11-3-70, Cl. 244-1.
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Kostas, James M., to Caterpillar Tractor Company. Hydraulic motor with coupling control valve. 3,545,579, 12-8-70, Cl. 192-3.
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Kosters, Paul Louis Marie, to U.S. Philips Corporation, mesne. Patient supporting device for radiographic examination. 3,506,826, 4-14-70, Cl. 250-55.
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Kotler, Aaron L., to Algoma Net Company. Hammock-stringing methods and assemblies. 3,550,166, 12-29-70, Cl. 5-122.
Kotler, Max S. Protective steel housing for locks. 3,508,504, 4-28-70, Cl. 109-59.
Kotler, Max; and Ravese, Frank E., to DeJur-Amsco Corporation. Intermittent film transport means for motion picture projector. 3,524,573, 8-18-70, Cl. 226-62.
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Kotte, Jan Jacob; and Kuppens, Bernardus Johannes, to U.S. Philips Corporation, mesne. Film transport device for film projector. 3,519,184, 7-7-70, Cl. 226-83.
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Kovell, Stanley P.; and Schutt, John B., to United States of America, National Aeronautics and Space Administration. Method for etching copper. 3,532,568, 10-6-70, Cl. 156-3.

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Kowalski, Alfred C. Ignition or like system. 3,550,573, 12-29-70, Cl. 123-148.

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Kowalski, Slawomir, to Marotta Valve Corporation. Differential pressure regulator for dual shut-off valves. 3,538,930, 11-10-70, Cl. 137-81.

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Koyama, Hirokazu: *See—*
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Koyama, Katsura: *See—*
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Koyama, Shigemitu: *See—*
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Koyama, Susugu; and Kyogoku, Takeji, to Mitsubishi Jukogyo Kabushiki Kaisha. Equipment and method for unloading liquids. 3,527,384, 9-8-70, Cl. 222-1.

Koyama, Tadashi: *See—*
Shindo, Yoshifumi; Takesue, Nobuyuki; and Koyama, Tadashi,3,491,402.

Koyama, Takeshi: *See—*
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Furuishi, Haruhisa; and Koyama, Yoneji,3,519,842.
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Matsuda, Akinobu, 3,500,699.
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Kozacka, Frederick J., to Chase-Shawmut Company, The. Electric multi-function fuse. 3,491,322, 1-20-70, Cl. 337-165.

Kozacka, Frederick J., to Chase-Shawmut Company, The. Electric cartridge fuse having high operating temperature when carrying load current. 3,513,424, 5-19-70, Cl. 337-158.

Kozacka, Frederick J., to Chase-Shawmut Company, The. Electric high interrupting capacity fuse for low current ratings. 3,529,270, 9-15-70, Cl. 337-232.

Kozacka, Frederick J., to Chase-Shawmut Company, The. Composite fuse link and fuse with composite fuse link. 3,543,209, 11-24-70, Cl. 337-159.

Kozacka, Frederick J., to Chase-Shawmut Company, The. Current-limiting fuse having fuse link with longitudinal groove. 3,543,210, 11-24-70, Cl. 337-159.

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Kozak, Stanley: *See—*
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Kozaki, Tatsuo, to Aisin Seiki Company Limited. Zigzag sewing mechanism. 3,516,374, 6-23-70, Cl. 112-158.

Kozawa, Tokinori; and Miwa, Ichiro, to Hitachi, Ltd. Semiconductor amplifier gain control circuit. 3,500,222, 3-10-70, Cl. 330-29.

Kozawa, Tokinori; Oomura, Yoshito; Miwa, Ichiro; and Nagata, Minoru, to Hitachi, Ltd. Transistor AC amplifier circuit. 3,535,647, 10-20-70, Cl. 330-18.

Kozdon, Friedrich: *See—*
Henkel, Hans-Joachim; and Kozdon, Friedrich,3,526,771.

Kozel, James A. Solenoid valve. 3,529,806, 9-22-70, Cl. 251-139.

Kozel, James A.: *See—*
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Kozempel, Michael F.: *See—*
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Kozerski, Henry. Universal joint. 3,514,973, 6-2-70, Cl. 64-17.

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Koziara, Mitchell Joseph: *See—*
Brown, Norman Robert; Koziara, Mitchell Joseph; and Ribble, Franklin,3,544,049.

Koziara, Mitchell Joseph, to General Electric Company. Spiral core precooler for water coolers. 3,521,703, 7-28-70, Cl. 165-66.

Kozicki, James A., to Chrysler Corporation. Vehicle brake fluid leakage warning system. 3,517,381, 6-23-70, Cl. 340-52.

Kozikowski, Casimir. Filler for concrete joints. 3,530,629, 9-29-70, Cl. 52-396.

Kozinski, Richard C., to Chrysler Corporation. Rapid heat apparatus. 3,523,644, 8-11-70, Cl. 237-12.3

Kozlik, Robert F.: *See—*
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Ewing, George; Holland, Robert L.; Johnson, George E.; and Kozlik, Robert F.,3,508,928.

Kozlik, Robert F., to General Mills, Inc. Multicolored cake batter and process for making same. 3,544,334, 12-1-70, Cl. 99-92.

Kozlik, Robert F., to General Mills, Inc. Coated frozen batter pieces and process for making same. 3,544,335, 12-1-70, Cl. 99-92.

Kozlow, Alex: *See—*
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Kozmin, Mikhail Ivanovich; Mashir, Ivan Fedotovich; Bezbozhny, Vasily Semenovich; and Olomsky, Veniamin Matveevich, to Ordena Trudovogo Krasnogo Znament Zavod 'Avtosteklo'. Continuous lehr for the heat treatment of glass-based materials. 3,540,703, 11-17-70, Cl. 263-6.

Koznar, Jaroslav, to Naradi narodni podnik. Assembly for rolling cylindrical surfaces. 3,517,533, 6-30-70, Cl. 72-76.

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Hull, Roger C.; and Kozol, Eugene T.,3,508,637.

Kozowyk, Ted; Maniker, Aaron; and Senecal, Donald E., to United States of America, Army. Torsion bar actuating system. 3,504,930, 4-7-70, Cl. 280-124.

Kozowyk, Ted; and Sinclair, Alex H., to United States of America, Army. Vehicle variable height actuator. 3,504,931, 4-7-70, Cl. 280-124.

Kozowyk, Ted; and Sinclair, Alex H., to United States of America, Army. Dual rate dampening device. 3,504,932, 4-7-70, Cl. 280-124.

Kozowyk, Ted; Sinclair, Alex H.; and Green, Willard R., to United States of America, Army, mesne. Mechanical actuator with torsion bar system. 3,513,927, 5-26-70, Cl. 180-41.

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Kozu, Isao: *See—*
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Kracauer, Paul, to Eisenstadt, Benjamin. Sweetening composition. 3,489,572, 1-13-70, Cl. 99-141.

Krach, Ottwin; Lohse, Helmuth; and Winter, Karl-Heinz, to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler. Apparatus for quenching workpieces. 3,531,096, 9-29-70, Cl. 266-6.

Krach, Ottwin: *See—*
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Kracho, John, to Squibb, E. R., & Sons, Inc. 2,3,4,5-Tetrahydro-1,5-benzothiazepines. 3,519,647, 7-7-70, Cl. 260-327.

Kracht, Gerhard; and Sasanko, Alvin M., to Swedish Crucible Steel Company. Machine for producing flexible foam polystyrene plastic bodies. 3,537,131, 11-3-70, Cl. 18-5.

Kracht Pumpen- und Motorenfabrik K.G.: *See—*
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Krackhardt, Elliott M.; and Doggett, Frederick F., to General Electric Company. Cathode ray tube having three in-line guns and center beam convergence shield modifying center beam. 3,534,208, 10-13-70, Cl. 313-77.

Krackow, Eric S., to Automatic Steam Products Corporation. Switch sequence control for heating elements and the like. 3,489,882, 1-13-70, Cl. 219-486.

Kraeling, John B.; and Carothers, William D. Omnidirectional force transducer measuring device. 3,492,864, 2-3-70, Cl. 73-133.

Kraemer, George T.; and Pasternack, Gerald P., to Bell Telephone Laboratories, Incorporated. Coincidence gate timer. 3,544,814, 12-1-70, Cl. 307-246.

Kraemer, John H.; Rome, James A.; and Crewson, Walter F. J., to EG & G, Inc. Switch trigger. 3,509,508, 4-28-70, Cl. 337-19.

Kraemer, LeRoy O. Oscillating power screed. 3,523,494, 8-11-70, Cl. 94-45.

Kraemer, Stefan; and Seidl, Alois, to Wasag-Chemie Aktiengesellschaft. Molded building blocks of different foamed glass layers and process for making same. 3,546,061, 12-8-70, Cl. 161-159.

Kraemer, William C., Jr.; and Eckardt, Carl R., to Dow Chemical Company, The, mesne. Chlorinated polyethylene foam. 3,498,934, 3-3-70, Cl. 260-2.5

Kraessig, Hans; and Bellvila, Ricardo, to Heberlein & Co. AG. Textile process which uses concentrated sulfuric acid after resin treatment. 3,515,505, 6-2-70, Cl. 8-116.3

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Krafft, Werner: *See—*
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Kraft, August L., to Automatic Process Control Inc. Method and apparatus for transferring and treating particulated solid materials. 3,521,371, 7-21-70, Cl. 34-15.

Kraft, August L., to Automatic Process Control, Inc. Handling fluid materials. 3,521,789, 7-28-70, Cl. 222-1.

Kraft, Derald H.: *See—*
Colbert, William H.; and Kraft, Derald H.,3,543,899.
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Kraft, Derald Henry, to Bliss, E. W., Company. Self-contained die cushion with air saver. 3,511,491, 5-12-70, Cl. 267-1.

Kraft, Derald H., to Bliss, E. W., Company. Press hydraulic overload system. 3,487,772, 1-6-70, Cl. 100-53.

Kraft, Derald H., to Bliss, E. W., Company. Low inertia clutch and flywheel assembly. 3,507,373, 4-21-70, Cl. 192-85.

Kraft, Donald E. Multiple passage spool valve having stepped bore. 3,533,445, 10-13-70, Cl. 137-625.18

Kraft, Donald E.; Czubachowski, Zygmunt J.; and Nobes, Wm. Douglas, to Caldwell Manufacturing Company, The. Sash guiding and balancing apparatus for removable sashes. 3,524,282, 8-18-70, Cl. 49-181.

Kraft, Elise Rhoda, to Nopco Chemical Company. Two component castable polyurethane elastomer composition and use. 3,489,723, 1-13-70, Cl. 260-77.5

Kraft, Hans-Gunther: *See—*
Erb, Rolf; Irmscher, Klaus; Bruckner, Klaus; Kraft, Hans-Gunther; and Kieser, Hartmut,3,510,556.
Irmscher, Klaus; Bork, Karl-Heinz; Kraft, Hans-Gunther; and Kieser, Hartmut,3,504,087.
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Kraft, Karl-Josef: *See—*
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Kraft, Kenneth A.; and Jahnke, Donald E., to Hydrahone Equipment Division. Vacuum bag lifter. 3,511,020, 5-12-70, Cl. 53-112.

Kraft, Kurt A.: *See—*
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Kraft, Paul: *See—*
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Kraft, Paul. Casing for a pocket umbrella with a flat cross-sectional shape in the folded position. 3,490,470, 1-20-70, Cl. 135-33.

Kraft, Paul, to Jurid Werke G.m.b.H. Friction lining compositions. 3,494,884, 2-10-70, Cl. 260-38.

Kraft, Paul; Altscher, Siegfried; and Keller, William F., to Stauffer Chemical Company. Solution grade PVC-copolymers prepared by suspension polymerization. 3,511,822, 5-12-70, Cl. 260-87.1

Kraft Systems, Inc.: *See—*
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Kraft, William A., to Singer Company, The. Tape reeling device. 3,517,895, 6-30-70, Cl. 242-190.

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Gordon, Arthur L.; and Warwick, Leonard A., 3,519,470.
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Kragen, Horst, to Societe de Produits Chimiques D'Auby. Method of obtaining colloidal solutions of starches in the cold state. 3,524,767, 8-18-70, Cl. 127-71.

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Kragness, Roger C.; and Waggener, Herbert A., to Bell Telephone Laboratories, Incorporated. Etchant for precision etching of semiconductors. 3,506,509, 4-14-70, Cl. 156-17.

Krahl, Kurt, to Maschinenfabrik Augsburg-Nuremberg Aktiengesellschaft. Vehicle disk brake. 3,489,022, 1-13-70, Cl. 74-105.

Krahn, Werner: *See—*
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Krahnke, Robert H., to Dow Corning Corporation. Noncoagulating surfaces. 3,508,959, 4-28-70, Cl. 117-138.8

Kraina, Jack H., to Caterpillar Tractor Company. Stop means for threaded traveling member. 3,508,449, 4-28-70, Cl. 74-89.15

Krainer, Helmut, deceased (by Krainer, Erika Krainer, Selma Krainer, Wolfram, heirs); Meyer, Gunter; and Serbent, Harry, said Meyer and said Serbent assors to Fried. Krupp Gesellschaft mit beschrankter Haftung. Method of prereducing sinters and pellets. 3,501,288, 3-17-70, Cl. 75-5.

Kraiss, Gabor: *See—*
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Krajewski, John J., to International Minerals & Chemical Corporation. Herbicidal hexachlorocyclohexadienone derivatives. 3,525,756, 8-25-70, Cl. 260-396.

Krajewski, William F.: *See—*
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Krakinowski, Morris, to International Business Machines Corporation. Switch arrangement. 3,527,956, 9-8-70, Cl. 307-134.

Krakovetsky-Kocherzhinsky, Jury Alexandrovich; and Shishkin, Evgeny Andreevich. Device for differential thermal analysis. 3,524,340, 8-18-7, Cl. 73-15.

Krakower, Gerald W., to Squibb, E. R., & Sons, Inc. Synthesis of 4-oxa steroids. 3,517,034, 6-23-70, Cl. 260-343.2

Krakower, Gerald W.; and Diassi, Patrick A., to Squibb, E. R., & Sons, Inc. 9-Chloroprogestational agents. 3,499,081, 3-3-70, Cl. 424-241.

Krakower, Gerald W.; and Diassi, Patrick A., to Squibb, E. R., & Sons, Inc.17-Esters of 9α,21-dihalo-11β,17α-dihydroxyprogesterones. 3,502,700, 3-24-70, Cl. 260-397.45

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Kral, Fred G., to Bell & Howell Company. Magazine with readily removable cartridges. 3,517,896, 6-30-70, Cl. 242-197.

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Kralik, Richard J., to Hooker Chemical Corporation. Production of rounded ammonium perchlorate crystals. 3,498,759, 3-3-70, Cl. 23-302.

Krall, Charles F., to Clevite Corporation. Method and apparatus for forming flange bearings. 3,503,109, 3-31-70, Cl. 29-149.5

Krallmann, Reinhold; Federkiel, Wilhelm; and Faulhaber, Gerhard, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Coloring or printing cellulosic fibrous material with nonmetallic pigments. 3,498,831, 3-3-70, Cl. 117-143.

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Kralt, Teunis: *See—*
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Kralt, Teunis; and Kroesen, Johan Albert Carel, to U.S. Philips Corporation, mesne. Veterinary preparations having a coating resistant to the rumen contents. 3,488,417, 1-6-70, Cl. 424-33.

Kram, William P., to General Electric Company. Integrated circuit for alternating current operation. 3,541,357, 11-17-70, Cl. 307-303.

Kramarenko, Vladimir Vasilievich: *See—*
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Kramer, Daniel E., to Kramer Trenton Co. Refrigeration of air conditioning system for installation partly without and partly within an existing building. 3,498,079, 3-3-70, Cl. 62-263.

Kramer, David C.; and Rogers, Waldo I., to Baldwin Kongsberg Company. Multiple-pen automatic drafting machine. 3,550,276, 12-29-70, Cl. 33-18.

Kramer, David Chester, to Trowel Fast, Inc. Troweling plaster delivery apparatus. 3,510,924, 5-12-70, Cl. 25-104.5

Kramer, David E., to Daniel Woodhead Company. Portable lamp. 3,536,907, 10-27-70, Cl. 240-54.

Kramer, David N.; and Gamson, Robert M., to United States of America, Army. Reversed enzymatic detection method for anticholinestrerases. 3,515,644, 6-2-70, Cl. 195-103.5

Kramer Designs: *See—*
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Kramer, Dieter; and Suling, Carlhans, to Farbenfabriken Bayer Aktiengesellschaft. Process for the production of acrylonitrile polymers. 3,525,725, 8-25-70, Cl. 260-88.7

Kramer, Dieter: *See—*
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Kramer, Forrest A., to FMC Corporation. Cylinder fabricating machine. 3,510,378, 5-5-70, Cl. 156-218.

Kramer, George H., to Dayton Electronic Products Company. Method for determining the resonant frequency of tuned circuits by using a variable pulse width generator. 3,525,933, 8-25-70, Cl. 324-57.

Kramer, Gordon. Semiconductor dosimeter having low temperature diffused junction. 3,527,946, 9-8-70, Cl. 250-83.2

Kramer, Helmut: *See—*
Kalb, Otto; Kramer, Helmut; and Lixenfeld, Wolfgang,3,536,310.

Kramer, Henry H.: *See—*
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Kramer, Horst: *See—*
Dieter, Werner H.; and Kramer, Horst,3,527,547.

Kramer, Hyman. Sheave suspension fixture for extension ladders. 3,536,159, 10-27-70, Cl. 182-207.

Kramer, Hyman. Clothes-hanger supporting means. 3,536,286, 10-27-70, Cl. 248-301.

Kramer, Hyman. Article suspending hooks. 3,536,287, 10-27-70, Cl. 248-301.

Kramer, Irvin R.; and Burrows, Charles F., to Martin-Marietta Corporation. Method of completely impregnating a medium hard anodized surface witholt straight-chain sturated aliphatic compounds and the product thereof. 3,510,411, 5-5-70, Cl. 204-38.

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Kramer, Josef; Irmscher, Klaus; Halpaap, Herbert; and Freisberg, Karl-Otto. Merck E., A.G. 6-Hydroxy-7-methoxy flavane derivatives and esters thereof. 3,546,250, 12-8-70, Cl. 260-340.5

Kramer, Josef: *See—*
Irmscher, Klaus; Kramer, Josef; Kraft, Hans-Gunther; and Kieser, Hartmut,3,535,344.

Kramer, Joseph. Toy and reclining baby bottle holder. 3,512,301, 5-19-70, Cl. 46-175.

Kramer, Kurt; and Dimter, Erwin. Continuous dovetailing machine. 3,527,274, 9-8-70, Cl. 144-91.

Kramer, Leonard: *See—*
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Kramer, Leo, to Ingersoll-Rand Company. Sliding-vane rotary fluid displacement machine. 3,539,281, 11-10-70, Cl. 418-125.

Kramer, Louis T.: *See—*
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Kramer, Max O., to United States of America, Navy, mesne. Vanes for high speed tow cable. 3,547,068, 12-15-70, Cl. 114-235.

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Kraszeski, Arthur; and Kent, Stephen D., to Kent, R. O., Corporation. Apparatus and method for making artificial tree branches. 3,504,423, 4-7-70, Cl. 29-419.

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Kratz, Courtney H., to Cosmos Corporation. Machine for presenting sheet-like articles for easy viewing. 3,532,337, 10-6-70, Cl. 271-3.

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Krekeler, Claude B., to Cincinnati Mine Machinery Co., The. Resilient retaining means and combination. 3,526,435, 9-1-70, Cl. 299-92.

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Kremer, Gilbert Victor Henri; and Sureau, Robert Frederic Michel, to Ugine Kuhlmann, mesne. Pyridazone-hydrazones. 3,510,488, 5-5-70, Cl. 260-250.

Kremer, Gilbert Victor Henri; and Sureau, Robert Frederic Michel, to Ugine Kuhlmann, mesne. Basic indazole containing monoazo dyestuffs. 3,524,843, 8-18-70, Cl. 260-163.

Kremer, Ross A.; and Wu, William C. L., to Mobil Oil Corporation. Esterification process. 3,491,143, 1-20-70, Cl. 260-475.

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Kremp, Rudolf; Friedlaender, Ernst; Winkler, Alfred; Engelsmann, Dieter; Ernst, Heinz; and Schroder, Rolf, to Agfa-Gevaert Aktiengesellschaft. Photographic camera with ejector for film magazines. 3,543,664, 12-1-70, Cl. 95-31.

Kremp, Rudolf: *See—*
Schaum, Gustav; Kremp, Rudolf; Becker, Johann; Hieber, Fritz; and Huber, Hans-Peter,3,530,250.
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Krenz, Richard W. Combination tackle box and chair. 3,545,809, 12-8-70, Cl. 297-217.

Krenzer, John, to Velsicol Chemical Corporation. Insecticidal composition and method containing 1,2,4-oxadiazolidine. 3,505,454, 4-7-70, Cl. 424-272.

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Krenzer, John, to Velsicol Chemical Corporation. Substituted phenyl benzoxazine dione compounds. 3,541,092, 11-17-70, Cl. 260-244.

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Kresge, Alfred N.: *See—*
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Kresge, James S.; and Miske, Stanley A., Jr., to General Electric Company. Triggering circuit for spark gap assemblies. 3,518,492, 6-30-70, Cl. 317-68.
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Kresin, Adolf. Quick flexible hose and/or pipe connection. 3,537,730, 11d3-70, Cl. 285-86.

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Kresock, John M.; and Burrus, Thomas W., to RCA Corporation. Keying circuit. 3,541,235, 11-17-70, Cl. 178-5.4

Krespan, Carl G., to Du Pont de Nemours, E. I., and Company. Selected polyfluorinated hydrazones and hydrazinohydrazones. 3,502,721, 3-24-70, Cl. 260-566.

Kress, Bernard H.; and Alexander, Donald E., to Quaker Chemical Corporation. Lubricants for metalworking operations. 3,526,596, 9-1-70, Cl. 252-49.5

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Kress, James Henry, to Deere & Company. Hydraulic motor. 3,511,131, 5-12-70, Cl. 91-176.

Kressel, Henry; and Hawrylo, Frank Z., to RCA Corporation. Semiconductor laser producing light at two wavelengths simultaneously. 3,537,029, 10-27-70, Cl. 331-94.5

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Kretchman, Gerald L., to Bendix Corporation, The. Switch for master cylinder. 3,541,282, 11-17-70, Cl. 200-82.

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Obmornov, Evegeny Vasilievich; Kretnik, Vladimir Gerasimovich; Koptelov, Valery Ivanovich; Dosvitskaya, Natalya Alexandrovna; Koptelova, Zinaida Petrovna; Masalova, Galina Pavlovna; Dosovitsky, Efim Izrailevich; and Ostrovskaya, Vera Nikolaevna,3,531,520.

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Kretzmer, Ernest R.; Port, Erich; and Rudin, Harry R., Jr., to Bell Telephone Laboratories, Incorporated. Adaptive mean-square equalizer for data transmission. 3,508,172, 4-21-70, Cl. 333-18.

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Kreuter, Kenneth G.; and Mueller, Klaus P., to Robertshaw Controls Company. Condition responsive parameter control means. 3,550,629, 12-29-70, Cl. 137-625.66

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Kreuz, William E.; Dankowski, John C.; and Slatten, William, to Hycon Mfg. Company. Aerial camera. 3,500,733, 3-17-70, Cl. 95-12.5

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Kriedt, Frederick A. Deepwater hydraulic power unit. 3,504,648, 4-7-70, Cl. 114-16.

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Krieger, Bernard L. Method and means of stringing beads. 3,545,069, 12-8-70, Cl. 29-433.

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Krijnen, Johannes M. N., to U.S. Philips Corporation, mesne. Random access storage device utilizing flexible magnetic disc records. 3,509,553, 4-28-70, Cl. 340-174.1

Krikorian, George. Bin construction. 3,501,020, 3-17-70, Cl. 211-184.

Krikorian, George. Disconnectable joint structure. 3,519,292, 7-7-70, Cl. 287-56.

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Krikorian, Hovhannes. Under-thread bobbin rack for sewing machines. 3,506,215, 4-14-70, Cl. 242-134.

Krimen, Lewis Irvin, to Abbott Laboratories. Coumarin derivatives. 3,534,065, 10-13-70, Cl. 260-343.2

Krimm, Heinrich; Malamet, Georg; and Schnell, Hermann, to Farbenfabriken Bayer Aktiengesellschaft. Copolymers of para-isopropenylphenyl isocyanate. 3,551,390, 12-29-70, Cl. 260-78.5

Krimm, Heinrich; Malamet, Georg; Schnell, Hermann; and Peltzer, Bernd, to Farbenfabriken Bayer Aktiengesellschaft. One component stoving lacquers prepared by the mixed polymerization of vinyl monomers with unsaturated compounds. 3,542,739, 11-24-70, Cl. 260-77.5

Krimm, Heinrich; and Schnell, Hermann, to Farbenfabriken Bayer Aktiengesellschaft. Isocyanato carbonic acid esters. 3,505,384, 4-7-70, Cl. 260-463.

Krimmel, Carl Peter, to Searle, G. D., & Co. Derivatives of hexahydro-4,7-methanoindan-2- carboxylic acid. 3,547,976, 12-15-70, Cl. 260-468.

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Kripke, Joseph B.; Mace, Arthur B.; and Voight, Byron E., to General Motors Corporation. Separable body and frame arrangement. 3,525,413, 8-25-70, Cl. 180-82.

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Kripp, Robert M., to Esquire, Inc. Recessed light fixtures. 3,518,420, 6-30-70, Cl. 240-78.

Krischker, Joseph, to Blessing-Werke KG. Electrical and mechanical alarm clocks with pulse- controlled position lamp. 3,545,195, 12-8-70, Cl. 58-19.

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Krivsky, William A.; Rau, Earl L.; and Archipov, Vsevolod, to Continental Copper and Steel Industries, Inc., mesne. Refined copper and process therefor. 3,490,899, 1-20-70, Cl. 75-109.

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Krizik, Jan G., to Plas-Tech Equipment Corporation. Apparatus for measuring changes in displacement in a body. 3,520,183, 7-14-70, Cl. 73-141.

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Krock, Richard H.; and Jones, Clintford R., to Mallory, P. R., & Co., Inc. Beryllium composite. 3,490,959, 1-20-70, Cl. 148-22.

Krock, Richard H.; and Jones, Clintford R., to Mallory, P. R., & Co., Inc. Method of producing beryllium composites by liquid phase sintering. 3,506,438, 4-14-70, Cl. 75-208.

Krockow, Ernst Wilhelm, to Spiess, Dr., G.m.b.H. Process of producing organic sulfur-containing compounds. 3,551,499, 12-29-70, Cl. 260-607.

Kroeger, Hanns H.: *See—*
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Kroeker, Elmer Leroy Bob, to International Business Machines Corporation. Closed loop spring clutch. 3,529,703, 9-22-70, Cl. 192-26.

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Kroener, Donald F. Tool mounting unit. 3,549,159, 12-22-70, Cl. 279-53.

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Kroger, Gerhard; and Rainer, Erich, to Siemens Aktiengesellschaft. Measurand transducer for measuring a length of yarn. 3,548,230, 12-15-70, Cl. 310-93.

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Krohn, Lawrence H.; and Stout, Charles D., to Bendix Corporation, The. Methods and apparatus for determining body compositions. 3,516,400, 6-23-70, Cl. 128-2.06

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Krol, Jan M.: *See—*
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Kroll, Harry: *See—*
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Kroll, Wolfram R., to Esso Research and Engineering Company. Heterogeneous catalysts. 3,536,632, 10-27-70, Cl. 252-430.

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Krolopp, Otto C., to Blaw-Knox Company. Weighing apparatus with automatically operated rotary weigh bucket. 3,539,028, 11-10-70, Cl. 177-83.

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Krolopp, Otto Charles, to Blaw-Knox Company. Granulizer with power feeder. 3,491,952, 1-27-70, Cl. 241-13.

Krolski, Kenneth L.; to McGraw-Edison Company. Work time meter for electric welder. 3,535,491, 10-20-70, Cl. 219-131.

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Kroneder, John G.; and Leyshon, David W. Beneficiation treatment of phosphate rock for preparation of fertilizers and other products. 3,518,072, 6-30-70, Cl. 71-41.

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Kroneisen, Armin: *See—*
Halasz, Istvan; and Kroneisen, Armin,3,550,452.

Kronenberger, Kurt G. E.; to Varian Mat GmbH. Mass spectrometer control system using hall probes to measure and regulate the gap and stray fields of the analyzing magnet. 3,549,881, 12-22-70, Cl. 250-41.9

Kroner, Klaus, to U.S. Philips Corporation, mesne. Color killing circuit with a passive subcarrier regenerator. 3,548,084, 12-15-70, Cl. 178-5.4

Krongos, Zaharias. Airplane with emergency propeller and detachable wings. 3,529,793, 9-22-70, Cl. 244-139.

Kronick, Harvey E.; Newcomb, Charles E.; and Singer, Sidney, to International Business Machines Corporation. Reverse scanning system. 3,510,866, 5-5-70, Cl. 340-324.

Kronig, Walter: *See—*
Brandt, Hans-Walther; Engelhard, Bruno; Kronig, Walter; and Schwerdtel, Wulf,3,501,550.

Kronig, Walter; and Konrad, Peter, to Farbenfabriken Bayer Aktiengesellschaft. Process for the electrochemical production of olefin oxides. 3,497,431, 2-24-70, Cl. 204-80.

Kronig, Walter; and Konrad, Peter, to Farbenfabriken Bayer Aktiengesellschaft. Process for the electrochemical production of olefin oxides. 3,501,388, 3-17-70, Cl. 204-79.

Kronig, Walter; and Schwerdtel, Wulf, to Farbenfabriken Bayer Aktiengesellschaft. Process for the production of acetic acid. 3,505,400, 4-7-70, Cl. 260-541.

Kronig, Walter; Schwerdtel, Wulf; Brandt, Hans-Walther; and Engelhard, Bruno, to Farbenfabriken Bayer Aktiengesellschaft. Aqueous waste disposal in process for preparation of isoprene from isobutylene. 3,494,975, 2-10-70, Cl. 260-681.

Kronig, Walter; Schwerdtel, Wulf; and Weicht, Bodo, to Farbenfabriken Bayer Aktiengesellschaft. Production of acetic acid with partial recycling. 3,493,609, 2-3-70, Cl. 260-541.

Kronoff, Clarence R.; and Dolbeare, Edwin F., to Crompton & Knowles Corporation. Control mechanism for loom selvage needle. 3,508,588, 4-28-70, Cl. 139-124.

Kronogard, Clas-Olof: *See—*
Kronogard, Sven-Olof; and Kronogard, Clas-Olof,3,498,057.

Kronogard, Sven-Olof; and Kronogard, Clas-Olof, to Turbokonsult AB. Gas turbine power plant. 3,498,057, 3-3-70, Cl. 60-39.16

Kronsbein, Curt, to Bellmann, Eugen, Maschinenfabrik. Stand for support pullovers during processing operations. 3,487,983, 1-6-70, Cl. 223-69.

Kronsbein, Curt. Apparatus for dyeing strings of yarn and method of operating same. 3,512,193, 5-19-70, Cl. 8-155.2

Kronschnabel, William J., to I-T-E Imperial Corporation. Coupling. 3,532,365, 10-6-70, Cl. 285-258.

Kronseder, Hermann: *See—*
Dullinger, Karl, 3,516,297.
Dullinger, Karl, 3,546,047.
Dullinger, Karl; and Jorss, Norbert, 3,546,048.
Munch, Karl Alan, 3,528,871.
Munch, Karl Alan, 3,537,934.

Kronseder, Hermann; Dullinger, Karl; and Munch, Karl A., said Dullinger and said Munch assors. to said Kronseder. Oscillating label transfer drum. 3,532,585, 10-6-70, Cl. 156-568.

Kronson, Harry, Jr.: *See—*
Petry, Ronald G.; and Kronson, Harry, Jr.,3,503,091.

Kronstein, Max, to Oakite Products, Inc. Surface coating compositions and their use. 3,528,860, 9-15-70, Cl. 148-6.15

Kronstein, Max, to ITT Rayonier Incorporated. Reaction coatings made from aqueous extracts of red cedar wood. 3,547,710, 12-15-70, Cl. 148-6.14

Kronstein, Max; and Kapfer, William H., to United States of America, Navy, mesne. Lubrication system derived from organo titanate complexes. 3,534,076, 10-13-70, Cl. 260-429.5

Krook, Edwin J.; and Suess, Jack E., to Kysor Industrial Corporation. Mounting assembly for actuators of cylinder locks. 3,514,983, 6-2-70, Cl. 70-370.

Kroopp, Karl-Gunnar. Means for joining together building units. 3,537,736, 11-3-70, Cl. 287-54.

Kropf, Philip M. Milk dispensing apparatus. 3,533,490, 10-13-70, Cl. 186-1.

Kropp, Paul J., to Procter & Gamble Company, The. Photochemical bleaching of polymaleate homopolymers and copolymers. 3,496,150, 2-17-70, Cl. 260-78.4

Kropp, Paul J., to Procter & Gamble Company, The. Novel photochemical reactions of 2-carene compounds and novel bicyclic products resulting therefrom. 3,507,761, 4-21-70, Cl. 204-162.

Kropp, Paul J., to Procter & Gamble Company, The. Novel reactions of 4-acyloxy-3-caranols and novel bicyclic compounds resulting from said reactions. 3,510,510, 5-5-70, Cl. 260-489.

Kropscott, Earle L.; Franson, Gunnar R.; Hanlon, Robert G.; and Krueger, Dennis L., to Dow Chemical Company, The. Method of packaging articles. 3,503,177, 3-31-70, Cl. 53-35.

Krosby, Johannes Anders, to Kvaerner Brugs Kjoleavdeling A/S. Heat exchangers. 3,517,734, 6-30-70, Cl. 165-178.

Krosby, Johannes Anders, to Kvaerner Brugs Kjoleovdeling A/S. Bearing for the rotor in an electric motor. 3,537,764, 11-3-70, Cl. 308-70.

Krosch, Joachim: *See—*
Goerden, Leonhard; Grunewald, Rainer; and Krosch, Joachim,3,536,549.

Krosoczka, Joseph D.: *See—*
Merrill, Samuel E.; and Krosoczka, Joseph D.,3,518,742.

Kroth, Neil W., to Caterpillar Tractor Company. Pilot valve with unbalanced spool. 3,542,075, 11-24-70, Cl. 137-625.69

Krotinger, Nathan, Jr.; and Nusbau, Isadore, to Zevel Corporation. Deodorizing and bactericidal compositions. 3,509,254, 4-28-70, Cl. 424-76.

Krottinger, Ralph L.; Pence, Samuel A.; and Eilers, Louis H., to Dow Chemical Company, The. Polymer-cement composition and use therefor. 3,493,529, 2-3-70, Cl. 260-29.6

Krow, Cecil J. Spark plug having a reversible inner electrode. 3,509,403, 4-28-70, Cl. 313-121.

Kroy Company: *See—*
Merrill, Neal W.; and Schenck, William H., 3,514,991.

Kroy, Ralph E., to Warren Fastener Corporation. Welding apparatus. 3,519,787, 7-7-70, Cl. 219-98.

Kroyer, Karl Kristian Kobs. Synthetic aggregate material and a process for producing same. 3,503,771, 3-31-70, Cl. 106-288.

Krsek, George, to Rachelle Laboratories, Inc.Novel 9α-fluoro-11β,17α,21-tri-hydroxy-16- hydroxymethyl-6-(dihydroxy) methyl-1,4-pregnadiene- 3,20-diones and derivatives thereof. 3,494,943, 2-10-70, Cl. 260-397.45

Krtous, George F.: *See—*
Betlejewski, Frank W.; and Krtous, George F.,3,529,146.

Krtous, George F., to Bell & Howell Company. Web container-cartridge assembly. 3,493,188, 2-3-70, Cl. 242-71.1

Krtous, George F.; and Michaels, Bruno, to Bell & Howell Company. Tooth profile for toothed ring of self- threading take-up reel. 3,522,915, 8-4-70, Cl. 242-74.

Kruchowy, Vincent; and Wahl, Frank, to Western Electric Company, Incorporated. Pressure control apparatus. 3,508,464, 4-28-70, Cl. 91-1.

Kruckeberg, Christian W., to Tokheim Corporation. Automotive electric fuel pump. 3,495,538, 2-17-70, Cl. 103-118.

Kruckeberg, Christian W.; Loy, John S.; and Overy, Lester R., to Tokheim Corporation. Emergency shut-off valve. 3,542,045, 11-24-70, Cl. 137-39.

Kruckenberg, Perry Lester; Anderson, Harold Elden; and Carlson, Ray Lavette, to McCalloch Corporation. Combustion system for internal combustion engine. 3,543,735, 12-1-70, Cl. 123-32.

Kruckenberg, Winfried: *See—*
Wedemeyer, Karlfried; Delfs, Detlef; and Kruckenberg, Winfried,3,519,642.

Krucker, Werner: *See—*
Muller, Hermann G.; and Krucker, Werner,3,509,746.

Kruckman, Le Roy W. Drive means for load-handling vehicles. 3,489,238, 1-13-70, Cl. 180-105.

Krueckel, Barbara F., to McDonnell Douglas Corporation. Process for producing multiple layer colored coating using actinic irradiation. 3,499,781, 3-10-70, Cl. 117-38.

Krueger, Arthur Frederic: *See—*
Rai, Charanjit; and Krueger, Arthur Frederic,3,544,536.

Krueger, Dayton A.: *See—*
Iverson, David H.; Krueger, Dayton A.; and Krueger, James R.,3,513,812.

Krueger, Dennis L.: *See—*
Kropscott, Earle L.; Franson, Gunnar R.; Hanlon, Robert G.; and Krueger, Dennis L.,3,503,177.

Krueger, George K., Jr. Deck of playing cards having a plurality of different types of suit markings, each of which is visibly distinctive from the others in surface appearance. 3,502,336, 3-24-70, Cl. 273-152.43

Krueger, Gerhard: *See—*
Hoppe, Klaus; and Krueger, Gerhard,3,550,916.

Krueger, Harvey R.; and Morgan, Arthur A., to Reynolds Products, Inc. Overflow control system for automatic beverage brewer. 3,527,172, 9-8-70, Cl. 137-414.

Krueger, James E.; Barringer, William Charles; and Henderson, Norman L., to American Cyanamid Company. Pamoates of (3-cyclohexyl-3-hydroxy-3-phenylpropyl) triethylammonium having unobjectionable flavors. 3,491,135, 1-20-70, Cl. 260-448.

Krueger, James R.: *See—*
Iverson, David H.; Krueger, Dayton A.; and Krueger, James R.,3,513,812.

Krueger, John R., to Xerox Corporation. Document feeding apparatus control. 3,504,908, 4-7-70, Cl. 271-10.

Krueger, John R.; Howard, Anthony; and Fackler, George E., to Xerox Corporation. Document registration system. 3,510,125, 5-5-70, Cl. 271-10.

Krueger, Max, to Space Research Corporation. Automatic machinery. 3,492,681, 2-3-70, Cl. 10-11.

Krueger Metal Products, Inc.: *See—*
Furtak, Ronald T.; and Schier, Robert W., 3,515,319.
Schier, Robert W.; and Singer, Leonard D., 3,513,986.

Krueger, Paul E.; and Quee, John A., to Dalry Equipment Company. Apparatus for continuously separating curd fines from whey. 3,535,784, 10-27-70, Cl. 31-46.

Krueger, Theodore H., Jr.; and Hix, Norman L., to Gametree Inc. Transducing apparatus with magnethead moving transverse to record means. 3,523,164, 8-4-70, Cl. 179-100.2

Krueger, Walter H.: *See—*
Waller, Percy H.; and Krueger, Walter H.,3,519,114.

Krueger, Wilbur W.; and Dever, John F. Authenticatable paper. 3,523,866, 8-11-70, Cl. 162-140.

Krueger, Wilbur W.: *See—*
Ware, Franklyn O.; Soukup, Charles L.; and Krueger, Wilbur W.,3,546,066.

Kruer, Harold H.: *See—*
Raney, Melvin A.; Emore, Clifford L.; Brown, Donald D.; Young, Richard C.; and Kruer, Harold H.,3,518,945.

Kruerke, Ulrich K., to Union Carbide Corporation. Copper (1) zeolites. 3,497,462, 2-24-70, Cl. 252-454.

Krug, Charles C., to Pan-Olympian Corporation. Pull rope friction type exercising device. 3,498,608, 3-3-70, Cl. 272-79.

Krug, Hans Dietrich, to Freudenberg, Carl. Process for the manufacture of molded foam articles from polyurethanes. 3,493,449, 2-3-70, Cl. 156-79.

Krug, Hans-Dietrich, to Freudenbert, Carl, Kommanditgesellschaft. Mold for molding polyurethane foam articles. 3,539,144, 11-10-70, Cl. 249-114.

Krug, Hans-Dietrich; and Rutsch, Peter, to Freudenberg, Carl. Production of foam article. 3,505,436, 4-7-70, Cl. 264-45.

Krug, Philip G., Jr.: *See—*
Campbell, William W.; Krug, Philip G., Jr.; and Liloia, Gerard J., Jr.,3,508,026.

Krug, Robert H.: *See—*
Holstedt, Richard A.; Dadura, James G.; Krug, Robert H.; and Love, Doris,3,549,534.

Krug, Robert W., to Zenith Radio Corporation. Television power supply circuit. 3,497,609, 2-24-70, Cl. 178-5.4

Krug, Robert W., to Zenith Radio Corporation. Two-stage DC coupled video amplifier. 3,518,361, 6-30-70, Cl. 178-5.4

Krug, Robert W., to Zenith Radio Corporation. Chrominance demodulator system for color television. 3,518,364, 6-30-70, Cl. 178-5.4

Krug, Wilhelm; and Priester, Ludwig. Clamping device for paper cutting machines. 3,497,203, 2-24-70, Cl. 269-236.

Kruger, Arthur C., Jr.; Sheppers, Joseph T., Jr.; and Strenglein, Harry F., to Sperry Rand Corporation. Moving object detector using differentially combined optical sensors having intersecting axes. 3,532,886, 10-6-70, Cl. 250-83.3

Kruger, Carl H.: *See—*
Zehrung, Claude D., Jr.; and Kruger, Carl H.,3,521,860.

Kruger, Cyril J. Assembly for adjusting the position of a load handling device mounted on a vehicle. 3,494,489, 2-10-70, Cl. 214-75.

Kruger, Dietrich: *See—*
Berger, Herbert; Dold, Otto; Kruger, Dietrich; Stach, Kurt; Schmidt, Felix Helmut; and Stork, Harald,3,496,066.

Kruger, Ernst, to Elektro-Thermit G.m.b.H. Aluminothermic welding casting mold. 3,495,801, 2-17-70, Cl. 249-141.

Kruger, Fritz: *See—*
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Kruger, Gerd: *See—*
Keck, Johannes; Kruger, Gerd; Machleidt, Hans; Noll, Klaus; Engelhardt, Gunther; and Eckenfels, Albrecht,3,536,712.

Kruger, Gunther, to American Home Products Corporation. Ester of 3-(2-propynyloxy)-estradiol. 3,496,272, 2-17-70, Cl. 424-238.

Kruger, Gunther; Sehgal, Surendra N.; and Vezina, Claude, to American Home Products Corporation. Process for the preparation of 3-hydroxy-17- ketosteroid-3,5,7-trienes. 3,496,198, 2-17-70, Cl. 260-397.4

Kruger, Gunther; and Verwijs, Anthonie, to American Home Products Corporation. 2,19-Epoxy-$\Delta^{4,6}$-steroids and intermediates for their synthesis. 3,493,564, 2-3-70, Cl. 260-239.55

Kruger, Harry, G.m.b.H.: *See—*
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Kruger, Helmut: *See—*
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Jentzsch, Dietrich; Kruger, Helmut; and Rohl, Horst,3,545,936.

Kruger, I., A/S: *See—*
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Kruger, James B.; and LePage, Gerard Thomas, to Scovill Manufacturing Company. Snap engaging hook and eye fastener. 3,535,753, 10-27-70, Cl. 24-226.

Kruger, Manfred: *See—*
Kreidler, Helmut; and Kruger, Manfred,3,517,275.

Kruger, Michael Henry, to Smithcraft Corporation. Lighting fixture. 3,548,187, 12-15-70, Cl. 240-51.11

Kruger, Robert J., to Ford Motor Company. Window cleaning system. 3,548,441, 12-22-70, Cl. 15-250.01

Kruggel, Roy W., to Whirlpool Corporation. Heat pump for selectively heating or cooling a space. 3,527,060, 9-8-70, Cl. 62-140.

Kruggel, Roy W., to Whirlpool Corporation. Absorption refrigeration system with refrigerant concentration control. 3,527,061, 9-8-70, Cl. 62-142.

Krugler, Arthur H.; and Massie, James E., to Hitco. Continuous process for preparing electrically conductive carbonaceous fibers. 3,540,848, 11-17-70, Cl. 23-209.3

Kruishoop, Johan Christiaan Willem, to U.S. Philips Corporation, mesne. Non-polar electrolytic capacitor containing a salt of an oxidizing acid. 3,541,399, 11-17-70, Cl. 317-230.

Kruka, Vitold R., to Shell Oil Company. Solvent injection method for removing blockages in slurry pipelines. 3,547,496, 12-15-70, Cl. 302-66.

Kruke, Edward J.: *See—*
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Krulik, Leon F.; and Gilbert, Thomas I., to Elco Corporation. Method for producing thiourea. 3,501,524, 3-17-70, Cl. 260-552.

Krull, Maurice. Slip-on fish line attachment. 3,514,891, 6-2-70, Cl. 43-44.87

Krumbein, Fritz, to Zeiss Ikon Aktiengesellschaft. Film projector. 3,532,294, 10-6-70, Cl. 242-210.

Krumbein, Fritz; and Becker, Dietrich, to Zeiss Ikon Aktiengesellschaft. Film projector with automatic correction of the framing of the picture. 3,510,212, 5-5-70, Cl. 352-160.

Krumkalns, Eriks V.: *See—*
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Gerzon, Koert; and Krumkalns, Eriks V.,3,510,504.

Krumm, Charles G.: *See—*
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Krummell, Harry D., deceased (by Krummell, Mildred A., executrix); and Krummell, John D. Cantilever rack. 3,503,524, 3-31-70, Cl. 211-176.

Krummell, John D.: *See—*
Krummell, Harry D.; and Krummell, John D.,3,503,524.

Krumtinger, Robert T.: *See—*
Bechman, William H.; and Krumtinger, Robert T.,3,550,478.

Krup, Donald E., to Ideal Industries, Inc. Method of making electrical connectors. 3,519,707, 7-7-70, Cl. 264-249.

Krup, Donald E., to Ideal Industries, Inc. No-strip explosion connector. 3,520,986, 7-21-70, Cl. 174-84.

Krupa, Walter H.: *See—*
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Kruper, Andrew P., to Westinghouse Electric Corporation. Humidity control system. 3,547,348, 12-15-70, Cl. 236-44.

Krupick, Walter J.: *See—*
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Macor, George S.; Krupick, Walter J.; and Cimera, Richard F.,3,538,776.

Krupit, Adolph E.: *See—*
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Krupnik, Stephen J., Jr.: *See—*
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Krupp, Fried., Gesellschaft mit beschrankter Haftung: *See—*
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Grada, Walter, 3,495,208.
Puschner, Herbert August, 3,535,483.
Schatz, Oskar Hermann, 3,508,138.
Schulz, Hans, 3,505,822.
Ziehm, Gunter Hans; and Triebold, Karl-Friedrich, 3,546,666.

Krupp, J Paul, Jr., to Reynolds Metals Company. Method of and apparatus for perforating films of thermoplastic material. 3,503,097, 3-31-70, Cl. 18-1.

Kruppa, Richard F.: *See—*
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Krups, Robert: *See—*
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Krupsky, Michael R., to Quelch, Richard, Bonnell, Roswell W., and Berr, Saul. Suspension seat toy and juvenile rest furniture. 3,528,657, 9-15-70, Cl. 272-85.

Krupsky, Michael R. Combination clothes washer and dryer. 3,531,954, 10-6-70, Cl. 68-18.

Kruschik, Julius, to Istag A.G. Suhr/AG. Liquid level indicator. 3,533,287, 10-13-70, Cl. 73-331.

Kruschke, Eugene A., to Fabri-Tek Incorporated. Transient elimination network. 3,488,516, 1-6-70, Cl. 307-244.

Kruschwitz, Werner. Flange mounting clamping section. 3,507,085, 4-21-70, Cl. 52-716.

Kruschwitz, Werner, to Draftex G.m.b.H. Sealing strip for the edges of openings of luggage compartments, doors or windows of automobiles. 3,527,013, 9-8-70, Cl. 52-716.

Kruse, Arthur H. Boat loader. 3,495,729, 2-17-70, Cl. 214-450.

Kruse, Frederick V.; and Behrends, Deane O., to AG-Rain Incorporated. Water irrigation system. 3,515,350, 6-2-70, Cl. 239-189.

Kruse, Fritz, to Messrs-H-Wohlenberg Kommanditgesellschaft. Quick-action chucking device, particularly for triple-cutter trimming machines. 3,496,823, 2-24-70, Cl. 83-698.

Kruse, Hans: *See—*
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Kruse, James A.: *See—*
Jones, Edward A.; Scopack, Vincent H.; and Kruse, James A.,3,499,126.

Kruse, John H. Lifting device. 3,499,548, 3-10-70, Cl. 214-1.

Kruse, Paul W., to Honeywell Inc. Radiation sensitive semiconductor device. 3,526,801, 9-1-70, Cl. 313-108.

Kruse, Robert C., to Tucci, Gertrude H., d/b/a Poersch Metal Manufacturing Company. Radiation protective fall construction and clad furring strips therefor. 3,517,627, 6-30-70, Cl. 109-82.

Kruse, Uno, to National Lead Company. Process of forming a polyethylene coating using a vanadium compound as the catalyst. 3,503,785, 3-31-70, Cl. 117-62.2

Kruse, Willard E., to Du Pont de Nemours, E. I., and Company. Process for cooling suspended TiO_2 particles. 3,526,267, 9-1-70, Cl. 165-1.

Krusius, Ewald H.: *See—*
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Thompson, John S.; Keast, Russell R.; and Krusius, Ewald H.,3,496,269.

Kruspe, Henry R.; and Mott, William E., to International Business Machines Corporation. Multiple cover control and latch assembly. 3,539,238, 11-10-70, Cl. 312-291.

Krutein, Manfred G., to General Dynamics Corporation. Method and apparatus for sampling. 3,521,715, 7-28-70, Cl. 175-5.

Krutzikowsky, Klaus E. B. Method of making plastic body. 3,540,113, 11-17-70, Cl. 29-415.

Kruyer, Jan: *See—*
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Kruzic, Zelko J.: *See—*
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Kryger, Allen C.: *See—*
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Krygier, Edward Z.: *See—*
Pernack, Frank; and Krygier, Edward Z.,3,487,516.

Krynicki, John. Pump valve construction. 3,494,295, 2-10-70, Cl. 103-170.

Krynski, John E., to Ametek, Inc. Plastic drum filter with cylinder and end plates. 3,494,473, 2-10-70, Cl. 210-404.

Krynski, John E.; and Seggebruch, Ernie G., to Ametek, Inc. Keyhole lock filter leaf guide. 3,490,595, 1-20-70, Cl. 210-238.

Krynytzky, Alexander; Schott, Arthur K.; and Hoffmann, Otto, to Houdaille Industries, Inc. Adjustable die support. 3,489,049, 1-13-70, Cl. 83-690.

Krynytzky, Alexander; Schott, Arthur K.; and Hoffmann, Otto, to Houdaille Industries, Inc. Punching machine. 3,529,502, 9-22-70, Cl. 83-137.

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Krysiak, Joseph E.: *See—*
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Vorozhtsov, Nikolai Nikolaevich; Koptjug, Valentin Afanasievich; Khmelnitsky, Albert Georgievich; and Krysin, Alexei Petrovich,3,511,889.

Krystof, Joseph P., to Rowland Products, Incorporated. Extruded sheet material having differentially colored bands and method for making same. 3,513,060, 5-19-70, Cl. 161-5.

Kryzer, Benjamin H., to Union Tank Car Company, mesne. Reverse osmosis water softening method and apparatus. 3,505,216, 4-7-70, Cl. 210-23.

Kryzer, Benjamin H., to Union Tank Car Company. Reverse osmosis-ion exchange water purification. 3,526,320, 9-1-70, Cl. 210-254.

Kryzer, Benjamin H.; and Tischler, Edward J., to Union Tank Car Company, mesne. Valve assembly. 3,547,151, 12-15-70, Cl. 137-599.1

Kryzer, Benjamin H.; and Winberg, Dennis G., to Union Tank Car Company, mesne. Liquid treatment tank. 3,503,513, 3-31-70, Cl. 210-286.

Krzyszczuk, Edward. Circular flow air compressor or diffusion motor. 3,490,851, 1-20-70, Cl. 415-74.

Krzyszczuk, Edward. Pump or compressor. 3,521,981, 7-28-70, Cl. 418-63.

KSC Semiconductor Corporation: *See—*
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K Square Engineering Company: *See—*
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Ku, Han Ying, to National Cash Register Company, The. Method for making semiconductor devices. 3,514,348, 5-26-70, Cl. 148-188.

Kuba, Richard E., to North Electric Company. Integral structure three-phase ferroresonant transformer. 3,531,708, 9-29-70, Cl. 321-5.

Kuba, Samuel; and Lagarde, Adolph K., Jr., to Western Electric Company, Incorporated. Apparatus for float zone melting fusible material. 3,494,742, 2-10-70, Cl. 23-273.

Kubach, Georg: *See—*
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Kubach, Hans, to Brown, Boveri & Cie Aktiengesellschaft. Multistage amplifier which prevents self-oscillations. 3,512,102, 5-12-70, Cl. 330-107.

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Kubach, Oscar P. Safety device for automobile wheels. 3,528,472, 9-15-70, Cl. 152-158.

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Kuban, William G. Harness for supporting binoculars and the like. 3,526,347, 9-1-70, Cl. 224-5.

Kubanek, George R.: *See—*
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Kubbo, Voldemar Arnoldovich: *See—*
Dlougy, Valenin Vladimirovich; and Kubbo, Voldemar Arnoldovich,3,493,111.

Kubecka, Lee R. Ground conditioner. 3,523,586, 8-11-70, Cl. 172-699.

Kubela, Rudolf; and Delmar, Geza S. Amide derivative of dehydroabietylamine and pantolactone. 3,493,613, 2-3-70, Cl. 260-562.

Kubicek, Donald H.: *See—*
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Kubicz, Arthur P., to Collins Radio Company. Infinite range electronics gain control circuit. 3,533,006, 10-6-70, Cl. 330-29.

Kubie, Elmer C.; and Computer Usage Company, Inc. Communications security system. 3,508,205, 4-21-70, Cl. 340-172.5

Kubik, James R., to General Dynamics Corporation. Method of fabricating multitube electronic circuit boards. 3,508,330, 4-28-70, Cl. 29-628.

Kubik, Richard S. Flow control for sprinklers. 3,512,543, 5-19-70, Cl. 137-119.

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Kubler, Ernest F., to General Electric Company. DC motor speed signal generating circuit. 3,519,906, 7-7-70, Cl. 318-18.

Kubler, Ernest F., to General Electric Company. Load control circuit utilizing a triac. 3,543,137, 11-24-70, Cl. 321-43.

Kubler, Hermann, to Barmag Barmer Maschinenfabrik Aktiengesellschaft. Crimping apparatus. 3,526,937, 9-8-70, Cl. 28-1.6

Kubli, Arthur F. Cable support. 3,531,071, 9-29-70, Cl. 248-68.

Kublicki, Jerzy S. Hydrophobic material and method of making same. 3,489,685, 1-13-70, Cl. 252-62.

Kubo, Hiroshi: *See—*
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Kubo, Kazuhiko, to Kabushiki Kaisha Osaka Packing Seizosho. Manufacturing aqueous slurry of hydrous calcium silicate and products thereof. 3,501,324, 3-17-70, Cl. 106-120.

Kubo, Seiji, to Hitachi, Ltd. Method of making semiconductor devices having insulating films. 3,504,430, 4-7-70, Cl. 29-571.

Kubo, Takao; and Murai, Katsuji, to Hitachi, Ltd. System for separating steam power plant from large electric power system. 3,546,475, 12-8-70, Cl. 307-85.

Kubo, Tamotsu, to Honda Giken Kogyo Kabushiki Kaisha. Concrete block. 3,488,964, 1-13-70, Cl. 61-37.

Kubo, Tomitaro; Shintani, Takao; Murata, Hiroyuki; Sugaike, Suezo; and Yonemoto, Sinji, to Tokyo Shibaura Electric Co., Ltd. Method for assembling a carbide filament incandescent lamp. 3,524,693, 8-18-70, Cl. 316-21.

Kubodera, Hisayoshi. Vertical drying machine. 3,510,960, 5-12-70, Cl. 34-155.

Kubokawa, Charles C., to United States of America, National Aeronautics and Space Administration. Fastener apparatus. 3,534,650, 10-20-70, Cl. 85-3.

Kubokura, Kuniaki; and Yokoyama, Kenjiro, to Hitachi Ltd. Device for precisely stopping sewing machine motors. 3,494,312, 2-10-70, Cl. 112-219.

Kubota, Haruo; Ishida, Ryuichi; Doi, Yoshihiko; and Nisikawa, Takeshi, to Sumitomo Electric Industries, Ltd. Ballpoint pen. 3,503,692, 3-31-70, Cl. 401-215.

Kubota, Hidetsugu. Backflow recovery propeller device. 3,549,271, 12-22-70, Cl. 416-124.

Kubota, Isamu: *See—*
Murata, Tomoji; Nomura, Keiichi; Ataka, Takeshi; and Kubota, Isamu,3,520,598.

Kubota, Isamu, to Minolta Camera Kabushiki Kaisha. Release device of movie camera for single frame shooting. 3,512,881, 5-19-70, Cl. 352-169.

Kubota, Katsuju: *See—*
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Kubota, Katuo: *See—*
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Kubota, Kazuo: *See—*
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Kubota, Koichi, to Shimpl Kogyo Kabushiki Kaisha. Motor car transmission for disabled person. 3,525,274, 8-25-70, Cl. 74-796.

Kubota, Koji; Maeyashiki, Isamu; Shiro, Teruo; and Noboru, Katsuya, to Ajinomoto Co., Inc. Method of producing L-lysine. 3,527,672, 9-8-70, Cl. 195-29.

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Kucera, Alois; and Hlavon, Vilem Brno, to Elitex Zavody textilniho strojirenstvi generalni reditelstvi. Method and apparatus for sewing angular seams. 3,545,390, 12-8-70, Cl. 112-164.

Kucera, Clare H.: *See—*
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Kucera, Clare H., to Dow Chemical Company, The. Corrosion inhibitor for aqueous acid. 3,506,581, 4-14-70, Cl. 252-146.
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Kuch, Heinz; Schmitt, Karl; Seidl, Gunther; and Hoffmann, Irmgard, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. 3,1-Benzothiazine derivatives. 3,502,666, 3-24-70, Cl. 260-243.

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Kuchar, Charles: *See—*
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Kuchenhart, Friedrich-Wilhelm; Kurbig, Josef; and Langer, Dieter, to Rohde & Dorrenberg. Method of making files. 3,533,310, 10-13-70, Cl. 76-24.

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Kuchinsky, Saul; and Wolfe, Roger W., to Burroughs Corporation. Indicator tube for displaying a plurality of characters. 3,517,257, 6-23-70, Cl. 315-169.

Kuchmy, William. Extraction esterification process. 3,507,852, 4-21-70, Cl. 260-209.6

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Kudlaty, Walter J., to Marvel Engineering Company. Universal filter housing head construction. 3,533,509, 10-13-70, Cl. 210-240.

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Kudlaty, Walter J., to Marvel Engineering Company. Reservoir-filter assembly. 3,539,009, 11-10-70, Cl. 210-90.

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Kudo, Mitsuhiro; and Doi, Toshio, to Hitachi, Ltd. Composite superconducting elements. 3,534,459, 10-20-70, Cl. 29-194.

Kudo, Shiro; Yada, Seiichi; and Yamauchi, Takayoshi, to Kyowa Hakko Kogyo Co., Ltd. Ternary aluminum-copper-cadmium alloy. 3,523,789, 8-11-70, Cl. 75-134.

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Kuehl, Donald K., to United Aircraft Corporation. Boron production. 3,488,152, 1-6-70, Cl. 23-209.

Kuehl, Paul B., to General Motors Corporation. Dirigible wheel suspension with unitary lower control arms and torsional roll stabilizer. 3,508,763, 4-28-70, Cl. 280-96.2

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Kuehnle, Manfred R., to DASA Corporation, mesne. Automatic telephone dialing apparatus. 3,495,229, 2-10-70, Cl. 340-174.1

Kueneman, Don; and Kenville, Cyril P. Gyratory crusher securing and adjusting mechanisms. 3,539,118, 11-10-70, Cl. 241-207.

Kuenstler, Robert E., Jr. Fencing swords. 3,516,662, 6-23-70, Cl. 273-1.

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Kuerston, Richard D., to Phillips Petroleum Company. Serial incremental refrigerant expansion for gas liquefaction. 3,548,606, 12-22-70, Cl. 62-9.

Kues, Henry A., Jr.; and Murphy, John C., to United States of America, Navy. Crystal growth in aqueous solution utilizing complexing agents. 3,518,049, 6-30-70, Cl. 23-50.

Kuester, Frank E.; Clark, Richard A.; and Gregory, Kenneth J., to Brunswick Corporation. Golf game apparatus. 3,516,675, 6-23-70, Cl. 273-176.

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Kugelfischer Georg Schafer & Co.: *See—*
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Kugelman, Irwin J., to American Standard, Inc. Countercurrent solid-liquid contacting system. 3,512,641, 5-19-70, Cl. 210-80.

Kugle, John L.: *See—*
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Kugler, Emanuel. Method of forming continuous strip of bags. 3,533,331, 10-13-70, Cl. 93-35.

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Kuhl, Philip J.; and Kuhl, Ivy B. Gopher chaser apparatus. 3,517,635, 6-30-70, Cl. 116-22.

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Kuhlkamp, Alfred; Nowack, Rudolf; Lehmann, Heinz; and Muller, Reinhold, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process for preparing foam plastics. 3,502,600, 3-24-70, Cl. 260-2.5

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Kuhn, Arvin J.: *See—*
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Kuhn, Charles J., to Black Jack Automative Systems. Tiedown apparatus. 3,494,587, 2-10-70, Cl. 248-361.

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Kuhn, Edgar, to Bosch, Robert, G.m.b.H. Voltage control circuit for A-C generator subject to widely varying drive speeds. 3,517,296, 6-23-70, Cl. 321-5.

Kuhn, Edmund W., to Westinghouse Electric Corporation. Electric switch having improved electrically conducting hinge structure. 3,500,006, 3-10-70, Cl. 200-48.

Kuhn, Edmund W., to Westinghouse Electric Corporation. Electric switch having improved blade construction. 3,544,741, 12-1-70, Cl. 200-48.

Kuhn, Edmund W., to Westinghouse Electric Corporation. Circuit breaker with improved trip means. 3,544,932, 12-1-70, Cl. 335-174.

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Kuhn, Gerald D. Die former. 3,495,333, 2-17-70, Cl. 32-32.

Kuhn, Gerald J.; and Kuhn, Arvin J. Combined sled and collapsible shelter. 3,492,015, 1-27-70, Cl. 280-12.

Kuhn, Gerald. Modular counting system. 3,549,869, 12-22-70, Cl. 235-92.

Kuhn, Hans Arthur. Pendulum clock. 3,520,125, 7-14-70, Cl. 58-2.

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Kuhn, Jason G.: *See—*
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Kuhn, Karl, to Societe d'Etudes de Machines Thermiques. Adjustable clamping device for securing a removable part to a support and its various applications. 3,520,045, 7-14-70, Cl. 29-200.

Kuhn, Konrad J., to All-O-Matic Manufacturing Corporation. Repair bracket for a transmission housing. 3,509,783, 5-5-70, Cl. 74-606.

Kuhn, Leon Dean: *See—*
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Kuhn, Richard B., to North American Rockwell Corporation. Apparatus and information processing methods for a tracking system tracker unit. 3,518,369, 6-30-70, Cl. 178-6.8

Kuhn, Richard: *See—*
Agnew, Thomas I.; and Kuhn, Richard,3,496,416.

Kuhn, Rolf Benno; Rieckmann, Peter; and Specker, Manfred, to Boehringer Mannheim Gesellschaft mit beschrankter Haftung. Anti-microbial compositions and methods employing N-(5-nitro-2-furfurylidene)-3-amino-2-oxazolidene. 3,513,238, 5-19-70, Cl. 424-272.

Kuhn, Rudolf, to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler. Process and the descaling of metals. 3,544,368, 12-1-70, Cl. 134-2.

Kuhn, Rudolf: *See—*
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Kuhn, Stephen J., to Dow Chemical Company, The. Hexamethylenetetramine salts of cyanoalkyl halides. 3,524,854, 8-18-70, Cl. 260-248.5

Kuhn, Stephen J.; and McIntyre, John S., to Dow Chemical Company, The. 3-(β-Aryl-β-(arylthio) (or arylseleno) propionyl)-coumarin products. 3,489,774, 1-13-70, Cl. 260-343.2

Kuhn, Stephen J.; and McIntyre, John S., to Dow Chemical Company, The. 3-(β-Aryl-β-(arylthio) (or arylseleno)- propionyl)pyrone products. 3,493,586, 2-3-70, Cl. 260-343.5

Kuhn, William J.; and Maurice, Paul E., to Heatbath Manufacturing Co., Inc. Radiant heating device. 3,503,379, 3-31-70, Cl. 126-85.

Kuhne, Christoph, to Carl Zeiss-Stiftung, d/b/a Zeiss, Carl. Device for indicating astronomical coordinates of astronomical instruments. 3,551,905, 12-29-70, Cl. 340-198.

Kuhne, Gerhard; and Zentner, Erich, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Vinyl chloride polymer mixture for the preparation of transparent rigid sheets. 3,510,543, 5-5-70, Cl. 260-876.

Kuhne, Hans-Dietrich; and Schuttloffel, Erich, to Telefunken Patentverwertungsgesellschaft m.b.H. Satellite antenna array with electrically adjustable beam shaping. 3,500,418, 3-10-70, Cl. 343-705.

Kuhne, Ingeburg; and Hartung, Horst, to VEB Optima Buromaschinenwerk Erfurt. Paper feed mechanism in typewriters and similar office machines. 3,547,246, 12-15-70, Cl. 197-114.

Kuhnen, Ferdinand; Muftic, Mahmod; Philippson, Rainer; and Kaspar, Emanuel, to Schering AG. Medicinal composition containing 5β- bisnorcholane-,22-amino derivative as an active ingredient. 3,539,687, 11-10-70, Cl. 424-241.

Kuhner, Gerhard: *See—*
Meyer-Simon, Eugen; Kuhner, Gerhard; and Meffert, Paul,3,535,154.

Kuhni, Rudolf, to Winkler, Fallert & Co., Ltd. Folding apparatus for rotor reprinting presses. 3,540,722, 11-17-70, Cl. 270-72.

Kuhnis, Hans Herbert; and Denss, Rolf, to Geigy Chemical Corporation. 4-Allyl-1-(2-anilinoethyl)-4-carbalkoxy-piperidines. 3,523,949, 8-11-70, Cl. 260-294.3

Kuhnis, Hans Herbert; and Denss, Rolf, to Geigy Chemical Corporation. Isonipecotonitriles. 3,551,431, 12-29-70, Cl. 260-293.

Kuhnis, Hans Herbert; Ryf, Hugo; and Denss, Rolf, to Geigy Chemical Corporation. Substituted 1,2,3,6-tetrahydro-4-pyridine acetic acid amides. 3,498,992, 3-3-70, Cl. 260-295.

Kuhnis, Hans Herbert; Ryf, Hugo; and Denss, Rolf, to Geigy Chemical Corporation. Certain 1,,3,6-tetrahydro-4- pyridyl ketones. 3,498,994, 3-3-70, Cl. 260-297.

Kuhnis, Hans Herbert; Ryf, Hugo; and Denss, Rolf, to Geigy Chemical Corporation. 1-Lower alkyl-4-(2'-hydroxylower alkyl)-4-piperidinols and lower alkyl acid esters thereof. 3,505,343, 4-7-70, Cl. 260-294.3

Kuhnis, Hans Herbert; Ryf, Hugo; and Denss, Rolf, to Geigy Chemical Corporation. Therapeutic compositions containing piperidine derivatives and methods of treating cough therewith. 3,509,258, 4-28-70, Cl. 424-267.

Kuhnl, Leopold Karl, to Eversharp, Inc. Adjustable turret razor. 3,491,442, 1-27-70, Cl. 30-34.

Kuhnl, Leopold K.: *See—*
Dawidowicz, Jan; Kuhnl, Leopold K.; Bombero, Thomas F.; and Ferraro, Frank A.,3,540,124.

Kuhnl, Leopold K., to Eversharp, Inc. Double edge ribbon-razor. 3,540,125, 11-17-70, Cl. 30-346.5

Kuhnle, Ernst; and Schwarz, Josef, to Bizerba-Werke Wilhelm Kraut KG. Price-indicating weighing scale. 3,515,231, 6-2-70, Cl. 177-34.

Kuhnle, Ernst; and Schwarz, Josef, to Bizerba-Werke Wilhelm Kraut KG. Weighing scales. 3,516,507, 6-23-70, Cl. 177-216.

Kuhnle, Paul, to Fr. Hesser Maschinenfabrik A.G. Machine for making, filling and closing packaging containers. 3,507,095, 4-21-70, Cl. 53-183.

Kuhnle, Paul, to Fr. Hesser Maschinenfabrik A.G. Bottom closure for bag with rectangular cross-section. 3,519,195, 7-7-70, Cl. 229-58.

Kuhnle, Paul; and Gaukler, Fritz, to Fa. Fr. Hesser Maschinenfabrik A.G. Forming mandrel for machine fabricating packaging containers. 3,530,773, 9-29-70, Cl. 93-12.

Kuhnle, Willi: *See—*
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Kuhnle, Willy: *See—*
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Kuhnlein, Hans, to Hch. Bertrams Aktiengesellschaft. Tube heat exchanger with liquid heat carrier. 3,547,188, 12-15-70, Cl. 165-109.

Kuhns, John P.; and Rizzone, Michael L., to United States Steel Corporation. Well pumping apparatus. 3,528,305, 9-15-70, Cl. 74-89.22

Kuhns, Robert C., to Kelley Company, Inc. Tread plate. 3,487,489, 1-6-70, Cl. 14-72.

Kuho, Tsunesuke: *See—*
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Kuhr, Johann; and Weinbach, Heinz, to Reichhold Chemicals, Inc. Flame-resistant wood-chip panels containing fully hardened urea formaldehyde as flame retardant. 3,535,199, 10-20-70, Cl. 161-162.

Kuhr, Wayne Kenneth: *See—*
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Kujas, Erich F., to Air Products and Chemicals, Inc. Polyepoxide with imidazole pre-catalyzed reinforcement material. 3,523,032, 8-4-70, Cl. 117-47.

Kujawa, Francis M.; Shepard, Alvin F.; and Dannels, Bobby F., to Hooker Chemical Corporation. 2,6-Disubstituted primary aryl phosphites, their salts and phosphorodihalidites and processes for the manufacture thereof. 3,491,024, 1-20-70, Cl. 252-32.5

Kujawa, Francis M.; and Stone, Jonathan A., to Hooker Chemical Corporation. Room temperature curing resin and foundry sand composition containing same. 3,499,861, 3-10-70, Cl. 260-25.

Kujawa, Francis M.; Tideswell, Richard B.; and Chamberlain, Gerald R., to Hooker Chemical Corporation. Low temperature-stable polyurethane foams and compositions containing derivatives of phenol- aldehyde resins useful for preparing said polyurethanes. 3,497,465, 2-24-70, Cl. 260-2.5

Kukihara, Fukuichi, to Kabushiki Kaisha Tone Boring. Excavation of trenches for buried walls. 3,509,949, 5-5-70, Cl. 175-40.

Kukulski, Zdzislaw. Tamper-proof envelope. 3,520,472, 7-14-70, Cl. 229-80.

Kulakov, Nikolai Konstantinovich. Horizontal coke oven having thickened extreme ends firing channel walls. 3,503,852, 3-31-70, Cl. 202-139.

Kulakov, Nikolai Konstantinovich. Method for controlling the readiness of the coke mass in the chamber of a horizontal coke oven. 3,506,542, 4-14-70, Cl. 201-1.

Kulakov, Nikolai Konstantinovich, to Gosudarstvenny Vsesojuzny Institut po Proektirovaniju Predpriaty Koksokhimicheskoi Promyshlennosti. Method of loading charge materials into a horizontal coke oven. 3,542,650, 11-24-70, Cl. 201-40.

Kulakov, Nikolai Konstantinovich, to Gosudatstvenny Vsesojuzny Institut Po Proektirovaniju Predpriaty Koksokhimicheskoi Promyshlennosti. Batteries of coke ovens. 3,544,429, 12-1-70, Cl. 202-139.

Kulberg, Marshall E.: *See—*
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Kulka, Thomas S. Latching means for reel band. 3,490,579, 1-20-70, Cl. 206-53.
Kulka, Thomas S. Cleaning attachment for ball point pen. 3,501,244, 3-17-70, Cl. 401-195.
Kulka, Thomas S. Ball point pen cleaner. 3,509,591, 5-5-70, Cl. 15-423.
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Kull, Eberhard; Wetzke, Bernhard; Griebel, Walter; Breite, Karl-Heinz; and Wiesmair, Heinrich, to Veb Rhongaswerk Dermbach. Food container and serving accessories. 3,526,313, 9-1-70, Cl. 206-4.
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Kull, Leo. Menstrual cycle indicating device. 3,534,905, 10-20-70, Cl. 235-88.
Kull, Ulrich; and Schuler, Roland, to Aktiengesellschaft Brown, Boveri & Cie. Arrangement for preventing glow discharges between insulated conductors in generator end turns. 3,508,096, 4-21-70, Cl. 310-196.
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Kulling, Achim; and Noack, Erich, to Titangesellschaft mbH. Means for producing fine particle size pyrogenic titanium dioxide. 3,539,303, 11-10-70, Cl. 23-277.
Kulling, Achim; Steinbach, Hans; and Thumm, Hans, to Titangesellschaft mbH. Device for the manufacture of aluminum chloride. 3,542,521, 11-24-70, Cl. 23-277.
Kulling, Achim; Steinbach, Hans; and Trueb, Hermann, to Titangesellschaft mbH. Means for producing titanium dioxide pigment. 3,540,853, 11-17-70, Cl. 23-277.
Kulling, Achim; and Steinhausen, Helmut, to Titangesellschaft m.b.H. Process for the manufacture of a titanium dioxide concentrate. 3,518,054, 6-30-70, Cl. 23-202.
Kullman, Russell M. H.; Bruno, Joseph S.; and Reinhardt, Robert M., to United States of America, Agriculture. Process for imparting wrinkle resistance and recovery properties to cotton stretch fabrics. 3,542,503, 11-24-70, Cl. 8-116.3
Kullmann, Donald J.; and Silverberg, Bernard M., to Badger Meter Manufacturing Company. Metering apparatus. 3,518,880, 7-7-70, Cl. 73-229.
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Kulman, Melvin L., deceased (by Kulman, Dorothy E.; administratrix), to Ingersoll-Rand Company. Control for torque producing tool. 3,512,591, 5-19-70, Cl. 173-12.
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Kulp, John L., to United States of America, Army, mesne. Phase shift system incorporating an integrator. 3,493,884, 2-3-70, Cl. 331-17.
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Kung, Rolf, to Aktiengesellschaft Brown, Boveri & Cie. Arrangement for contactless measurement of the temperature of a moving wire. 3,525,260, 8-25-70, Cl. 73-355.
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Kurtz, Jacob, to Kulite Tungsten Corporation. Ball mill. 3,549,094, 12-22-70, Cl. 241-171.

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Kurz, Arthur W., Jr., to Nelmar Corporation. Prismatic rear view mirror. 3,520,594, 7-14-70, Cl. 350-281.

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Kurz, John C., to Air Balance, Inc. Nonturbulent fire damper. 3,504,615, 4-7-70, Cl. 98-1.

Kurz, John C. Removable storm shutter. 3,516,470, 6-23-70, Cl. 160-35.

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Kusakabe, Takeshi; Suzuki, Kenji; and Kano, Kimio, to Toyoda Machine Works Ltd. Feed control apparatus with a safety device. 3,550,327, 12-29-70, Cl. 51-165.

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Kuters, Wilhelm. Gas purification. 3,526,081, 9-1-70, Cl. 55-127.

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Kyp, Robert J. Incandescent lamp with oscillating filament. 3,548,255, 12-15-70, Cl. 315-267.
Kyp, Robert J. Incandescent lamp with oscillating filament. 3,549,946, 12-22-70, Cl. 315-267.
Kyroudis, Rene Alexandre Vincent. Device for providing heat-conveying fluid. 3,512,580, 5-19-70, Cl. 165-26.
Kyryluk, William F. Solar heat transducer apparatus. 3,514,942, 6-2-70, Cl. 60-26.
Kyser, Smith, to Aircraft Specialties, Inc. Piston ring groove cleaner. 3,510,902, 5-12-70, Cl. 15-104.01
Kysor Industrial Corporation: *See—*
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Krook, Edwin J.; and Suess, Jack E., 3,514,983.
Kytta, Oswald O., to Bendix Corporation, The. Servomotor and valve means. 3,517,588, 6-30-70, Cl. 91-369.
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Knabusch, Edward M.; and Shoemaker, Edwin J., 3,540,717.
Laa, Friedrich, to U.S. Philips Corporation, mesne. Magazine-type magnetic tape recorder with separate and movable tape scanning element support and/or tape pressure element support. 3,495,835, 2-17-70, Cl. 274-4.
Laa, Friedrich, to U.S. Philips Corporation, mesne. Loading mechanism for tape cartridge player. 3,542,370, 11-24-70, Cl. 274-4.
Laakkonen, Launo; and Purhonen, Matti. Rapidly closing stop valve for air raid shelters. 3,516,348, 6-23-70, Cl. 98-119.
Laakso, Oliver A., to Aktiebolaget Kamyr. Disc grinding apparatus. 3,523,649, 8-11-70, Cl. 241-85.
Laakso, Perttu V., to Kendall Company, The. Plaster of paris bandage. 3,490,445, 1-20-70, Cl. 128-91.
Laas, Ilmar Ervin, to Otis Elevator Company. Car call signalling system. 3,493,922, 2-3-70, Cl. 340-19.
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La Bahn, Paul R.: *See—*
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Labarber, Joseph A., to Turbo Bath Corporation. War massage aerator apparatus. 3,533,404, 10-13-70, Cl. 128-66.
La Barge, Olin E., to La Burne Company. Fishing lure holder. 3,512,295, 5-19-70, Cl. 43-57.5
La Barge, Robert L., to Aluminum Company of America. Crimped cap. 3,506,151, 4-14-70, Cl. 215-39.
La Barge, Robert L.; and Riesen, Walter C., Jr., to Aluminum Company of America. Container closure and a method of securing the same to a container. 3,497,097, 2-24-70, Cl. 215-39.
La Barre, Lawrence J.: *See—*
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Labat-Camy, Andre Pierre Honore. Footwear equipment unit for skiing and other purposes. 3,538,627, 11-10-70, Cl. 36-2.5
Labat, Pierre, to Societe Anonyme de Vehicules Industriels et d'Equipements Mecaniques Saviem. Multiple friction clutches. 3,521,731, 7-28-70, Cl. 192-48.91
Labat, Yves: *See—*
Audouze, Bernard; and Labat, Yves,3,519,689.
Audouze, Bernard; Labat, Yves; and Dereuddre, Pierre,3,534,108.
Labat, Yves, to Societe Nationale des Petroles d'Aquitaine. Process for the preparation of monothioether diol. 3,534,107, 10-13-70, Cl. 260-609.
La Bate, Michael D. Sectional hot top with channel shaped wiping and holding device. 3,540,689, 11-17-70, Cl. 249-106.
La Bate, Michael E., deceased (by Pittsburgh National Bank of Pittsburgh; executor). Combustible hot top. 3,495,995, 2-17-70, Cl. 106-38.22
Labatt, John, Limited: *See—*
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Murray, Edward D.; and Prince, Margaret P., 3,507,750.
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Labbe, Francis Auguste Maurice, to Molins Machine Company Limited. Apparatus for continuously feeding cut tobacco into a cigarette-making machine. 3,514,159, 5-26-70, Cl. 302-59.
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La Belle, Harold E., Jr., to Tyco Laboratories, Inc. Growth of sapphire filaments. 3,527,574, 9-8-70, Cl. 23-273.
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Laberinti, Cesare; and Paganelli, Guido, to Pirelli S.p.A. Method for the formation of composite structures based on expanded polyurethane material welded to a covering layer. 3,535,196, 10-20-70, Cl. 161-160.
Labes, Mortimer M., to Drexel Institute of Technology. Contact copying material. 3,527,666, 9-8-70, Cl. 161-161.
Labino, Dominick, to Johns-Manville Corporation. Chemical resistant glass composition for fiberization. 3,513,002, 5-19-70, Cl. 106-50.
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LaBotz, Richard J., to Aerojet-General Corporation. Method of making a metallic filter. 3,515,605, 6-2-70, Cl. 156-3.
Laboue, Bernard Andre, to Societe Industrielle Bull-General Electric (Societe Anonyme). Connectors for printed circuit cards and the like. 3,543,226, 11-24-70, Cl. 339-176.
Laboureur, Pierre: *See—*
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La Branche, Harvey W.: *See—*
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La Branche, Harvey W.; and Newman, Howard F., to Mattel, Inc. Vehicle and track combination toy. 3,510,981, 5-12-70, Cl. 46-202.
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Labrousse, Michel: *See—*
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Labuda, Edward F., to Bell Telephone Laboratories, Incorporated. Broad band maser devices. 3,504,297, 3-31-70, Cl. 331-94.5
Labuda, Edward F.: *See—*
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Labude, Wolfgang; and Bauer, Karl-Heinz, to Preh Electro-Feinmechanische Werke. Plural voltage divider aggregate. 3,551,791, 12-29-70, Cl. 323-80.
Labude, Wolfgang; and Bauer, Karlheinz. Push-button channel selecting units for multiband receivers having capacitance diode tuning means. 3,508,176, 4-21-70, Cl. 334-7.
Labude, Wolfgang; and Bauer, Karlheiz, to Preh Elektro-Feinmechanische Werke, Jakob Preh Nachf. Pushbutton channel selecting and voltage divider presetting unit. 3,522,542, 8-4-70, Cl. 325-458.
La Burne Company: *See—*
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Labyer, Harold S.: *See—*
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Lacal Industries Limited: *See—*
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Lacal, Rodolphe, to U.S. Philips Corporation, mesne. Semiconductor device contact layers. 3,522,087, 7-28-70, Cl. 117-227.
Lacamera, Nicholas J.: *See—*
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Lacan, Guy H.: *See—*
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Lacefield, William B., to Lilly, Eli, and Company. Intermediate and process for the preparation of nortriptyline. 3,547,998, 12-15-70, Cl. 260-570.5
La Cellophane, Societe Anonyme: *See—*
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Lacey, David Graham: *See—*
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Lacey, Malcolm Walter: *See—*
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Powell, John Ernest; and Lacey, Malcolm Walter,3,522,651.
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Lach, Richard F.: *See—*
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Lachampt, Felix; Viout, Andre; and Vanlerberghe, Guy, to Societe Anonyme dite: L'Oreal. Water-in-oil emulsion. 3,489,690, 1-13-70, Cl. 252-308.

Lachenmayer, Richard R.: *See—*
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Lacher, William A.: *See—*
Morgenson, Edgar O.; and Lacher, William A.,3,524,179.

Lachman, Irwin M., to Corning Glass Works. Thermal shock resistant ceramic materials. 3,528,831, 9-15-70, Cl. 106-59.

Lachman, Irwin M., to Corning Glass Works. High density alumina and method for producing it. 3,544,343, 12-1-70, Cl. 106-65.

Lachman, Irwin M. Thermal shock resistant ceramic material. 3,549,400, 12-22-70, Cl. 106-59.

Lachman, Leon: *See—*
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Lachner, Otto: *See—*
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Lachner, Otto, to Lever Brothers Company. Pressure-resistant plastics bottle. 3,511,401, 5-12-70, Cl. 215-1.

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Lackey, Marion D.: *See—*
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Lackner, Helmut G., to United States of America, National Aeronautics and Space Administration. Method and apparatus for simulating zero gravity conditions. 3,526,140, 9-1-70, Cl. 73-432.

LaCore, Lyle B.: *See—*
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Lacoste, Gerard H., to Societe Herwaythorn S.A. Motor vehicle gearboxes. 3,545,568, 12-8-70, Cl. 184-6.

Lacoste, Jean Rene, to Patentex S.A. Rackets for tennis or similar games. 3,502,331, 3-24-70, Cl. 273-73.

Lacour, Jacques: *See—*
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La Croce, Leonard Thomas; Batchelar, Raymond Luscombe; and Rouse, John Wilson, to American Can Company. Full open end. 3,544,025, 12-1-70, Cl. 220-54.

Lacroix, Armand Jean-Baptiste: *See—*
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Bauger, Louis Jules; Bouiller, Jean Georges; and Lacroix, Armand Jean-Baptiste,3,549,272.
Bouiller, Jean Georges; Joubert, Raymond Jean Maurice; Bauger, Louis Jules; and Lacroix, Armand Jean-Baptiste,3,540,221.
Quillevere, Herve Alain; Lacroix, Armand Jean-Baptiste; and Stakic, Ratko,3,540,216.

La Croix, Henry N., to Foster Wheeler Corporation. Decanter inlet distributor. 3,545,646, 12-8-70, Cl. 220-86.

Lacroix, Laurent, to Rhone-Poulenc S.A. Fungicidal compositions containing 3- phenylindazole. 3,502,775, 3-24-70, Cl. 424-273.

LaCroix, Lucien J.: *See—*
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Lacroix Philippe: *See—*
Vergne, Jean; Solaux, Leon; Robinet, Jean-Claude; and Lacroix Philippe,3,546,183.

Lacroix, Serge, to Societe Industrielle Bull-General Electric (Societe Anonyme). Superconductor data storage device. 3,500,344, 3-10-70, Cl. 340-173.1

Lacroux, Gerard, to Etablissements E. Ragonot. Rotor for reluctance motors. 3,493,799, 2-3-70, Cl. 310-166.

Lacson, Jose Job, to Swivel Pool Corporation. Combined cue and disc game. 3,547,443, 12-15-70, Cl. 273-126.

Lact-O-Matic Proprietary Limited: *See—*
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Lacy, Gordon S.: *See—*
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Lacy, Lewis S. Method of operating and apparatus for an isothermal dual conversion steam power plant. 3,533,231, 10-13-70, Cl. 60-27.

Lacy, Michael J.; and Smith, Jack D., to Emerson Electric Co. Hermetic motors. 3,514,652, 5-26-70, Cl. 310-217.

Lacy, Michael J.: *See—*
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Lacy, Ray S., Jr., to Bethlehem Steel Corporation. Apparatus for the storage of petroleum under water. 3,488,969, 1-13-70, Cl. 61-63.

Lada, Sigismund A., to Owens-Illinois, Inc. Appartus for press-molding hollow glass articles. 3,507,640, 4-21-70, Cl. 65-308.

Ladan, Stephan G.: *See—*
Henderson, Ian H. S.; Ladan, Stephan G.; and Bourgault, Pierre L.,3,498,893.

Ladas, George T. Orbital clock. 3,525,209, 8-25-70, Cl. 58-50.

Laden, Karl: *See—*
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Laden, Max H., to Swift & Company. Manufacture of paper products. 3,505,270, 4-7-70, Cl. 260-33.2

Lader, William: *See—*
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Ladewski, Casimer S. Snow plow with adjustable blades. 3,526,979, 9-8-70, Cl. 37-44.

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Lado, William J.; and Hefferin, John F., to Pettibone Mulliken Corporation. Swinging crane with high mechanical advantage braking. 3,539,053, 11-10-70, Cl. 212-69.

La Due, Augustus W.: *See—*
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Ladwig, Peter: *See—*
Kupke, Rudolf Manfred; Ladwig, Karl-Heinz; Ladwig, Peter; Mortensen, Curt Adolf Manfred; and Handschack, Hugo Harry,3,516,512.

Lady Jayne (Hair Products) Limited: *See—*
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Ladyjenski, Jacques E. Device and a process for continuously forming a sheet of thermoplastic material. 3,516,116, 6-23-70, Cl. 18-4.

Laenger, Charles J.: *See—*
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Laerdal, Asmund S. Pump for medical purposes. 3,499,601, 3-10-70, Cl. 230-192.

Laerdal, Asmund S. Laryngoscope. 3,507,272, 4-21-70, Cl. 128-16.

La Espana Industrial, S.A.: *See—*
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Laessig, Rudolph R.: *See—*
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Laetsch, Erich Kurt, Jr.: *See—*
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La Fave, Richard L., to Ransburg Electro-Coating Corporation. Paper making methods and appartus involving electrostatic spray coating. 3,536,580, 10-27-70, Cl. 162-186.

La Fave, Richard L.; and Probst, Richard O., to Ransburg Electro-Coating Corporation. Electrostatic coating method. 3,536,514, 10-27-70, Cl. 117-17.

Lafay, Regis: *See—*
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La Ferney, William E. Irrigation conduit end control. 3,498,064, 3-3-70, Cl. 61-25.

Laff, Robert A.: *See—*
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Laff, Robert M. Keylock for electrical plugs. 3,524,029, 8-11-70, Cl. 200-44.

Lafferty, James F.: *See—*
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Lafferty, James M.: *See—*
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Lafferty, James M., to General Electric Company. Ultra-high vacuum magnetron ionization gauge with ion-collector shield. 3,495,127, 2-10-70, Cl. 315-108.

Laffitte, Paul: *See—*
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Laffont, Maurice; and Duvet, Claude. Cable working arrangement on submarine well-heads. 3,511,312, 5-12-70, Cl. 166-0.5

Lafforgue, Jean-Claude Rene, to Canadian General Electric Company Limited. Windowed oven door. 3,507,267, 4-21-70, Cl. 126-200.

Lafitte, Carl Wayne: *See—*
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La Flame, Thomas R. Accessory for drums. 3,543,632, 12-1-70, Cl. 84-453.

Laflamme, George D., to Matthews Equipment Company. Helper for the outer curved end of a picker stick check strap. 3,516,450, 6-23-70, Cl. 139-165.

LaFlamme, Paul E., to North American Detergent Corporation. Method of cleaning a stone surface and composition therefor. 3,511,707, 5-12-70, Cl. 134-27.

La Fleche, Oakley, to Howell Industries, Incorporated. Energy absorbing seat mounting device. 3,531,154, 9-29-70, Cl. 296-65.

La Fleur, James K. Cryogenic separation of fluids associated with a power cycle. 3,531,942, 10-6-70, Cl. 62-23.

LaFleur, Jean L., to Bell Aerospace Corporation. Aircraft undercarriage. 3,507,466, 4-21-70, Cl. 244-105.

La Fleur, Jean L., to Bell Aerospace Corporation. Air supported vehicle undercarriage. 3,524,517, 8-18-70, Cl. 180-124.

La Fleur, Maynard P. Meat tenderizer. 3,501,801, 3-24-70, Cl. 17-29.

Lafoe, Lorin G., to Fiber Industries, Inc. Basic dyeable polyester polymers containing a metal salt of a cycloalkyl sulfonate. 3,538,057, 11-3-70, Cl. 260-75.

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La Fontaine, Allyn L.; and Chrzan, Edward J., to General Hardwood Company, mesne. Lawn edging. 3,545,128, 12-8-70, Cl. 47-33.

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Lagerstrom, Robert C., to National Union Electric Corporation. Thermal control means for a cleaner assembly. 3,510,904, 5-12-70, Cl. 15-319.

Lagerwey, Johannes, to Reactor Centrum Nederland. Rotary supports and associated vibration dampers for fast spinning bodies of revolution. 3,537,765, 11-3-70, Cl. 308-142.

Lagier, Jean-Claude, to Mefina S.A. Adjusting system for universal motors. 3,551,768, 12-29-70, Cl. 318-245.

Lagneborg, Rune Gunnar, to Sandvikens Jernverks Aktiebolag. Ferritic, martensitic and ferrite-austenitic chromium steels with reduced tendency to 475 C.- embrittlement. 3,499,802, 3-10-70, Cl. 148-37.

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Lagos, Costas C., to Sylvania Electric Products, Inc. Europium activated strontium magnesium orthophosphate phosphors. 3,544,483, 12-1-70, Cl. 252-301.4

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Laguna, Efrain. Machine for grinding split point drills. 3,494,080, 2-10-70, Cl. 51-219.

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Lal, Joginder, to Goodyear Tire & Rubber Company, The. Polymers from olefin oxides and sulfides. 3,542,698, 11-24-70, Cl. 260-2.

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Laliberte, Real, to American Home Products Corporation. Derivatives of 5-cyano-4-thiazoline-$\Delta^{2,4}$- acetonitriles. 3,503,988, 3-31-70, Cl. 260-306.7

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L'Allemand, Charles C., to Baldt Corporation, mesne. Bobbin extender. 3,544,033, 12-1-70, Cl. 242-118.31

L'Allemand, Charles C.; and Hunt, Francis L., to Baldt Corporation, mesne. Bobbin pick-up knob. 3,540,673, 11-17-70, Cl. 242-118.3

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Lami, Benjamin C. Closed-circuit TV switching system. 3,511,926, 5-12-70, Cl. 178-6.

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Lamka, Charles E.; and Atkins, Walter J. Process for dispensing icy materials. 3,543,811, 12-1-70, Cl. 141-9.

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Lamoreaux, Harry F., to General Electric Company. High strength silicone elastomers. 3,529,035, 9-15-70, Cl. 260-825.

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Lampart, Thomas; and Scheidweiler, Andreas, to Cerberus AG. Ionization fire alarm and improved method of detecting smoke and combustion aerosols. 3,521,263, 7-21-70, Cl. 340-237.

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Lampert, Marvin S.; and Schmidt, Richard Q., to United States of America, Navy, mesne. Background averaging system for improving radar target detection. 3,500,396, 3-10-70, Cl. 343-7.

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Lancaster, Jesse F., to Cook Engineering Company. Shielded electrical switching jack with impedance balancing network. 3,529,264, 9-15-70, Cl. 333-7.

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Lance, Drew R., Jr.; and Rupp, Steven B., to Fairchild Camera and Instrument Corporation. Linear voltage tuned microwave resonant circuits and oscillators. 3,512,105, 5-12-70, Cl. 331-96.

Lance, General Walter Ace. Heat exchanger fin straightening device. 3,531,975, 10-6-70, Cl. 72-457.

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Land, Edwin H., to Polaroid Corporation. Color television receiver and display system. 3,523,159, 8-4-70, Cl. 178-5.4

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Land, Harry Albert: *See—*
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Land, James W., Jr., to Control Science Corporation. Pulse coherent transponder. 3,524,201, 8-11-70, Cl. 343-6.8

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Lander, Herbert R., Jr.; and Wogoman, Lawrence A., to United States of America, Air Force. Apparatus and method for measuring jet fuel thermal stability. 3,529,464, 9-22-70, Cl. 73-61.2

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Lane, John W.: *See—*
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Lane, John, to Keeler & Dunkel, Inc. Display device. 3,510,974, 5-12-70, Cl. 40-124.1

Lane, Marvin, to Union Tank Car Company, mesne. Convertible filter apparatus. 3,498,460, 3-3-70, Cl. 210-232.

Lane, Michael S., to Bell Telephone Laboratories, Incorporated. Controllable logic gate oscillator. 3,543,184, 11-24-70, Cl. 331-111.

Lane, Norman, to BSR Limited. Pick-up arms for record players. 3,502,341, 3-24-70, Cl. 274-23.

Lane, Norman, to BSR Limited. Tape-playing apparatus. 3,536,330, 10-27-70, Cl. 274-4.

Lane, Paul F. Lift apparatus for a treating unit. 3,530,789, 9-29-70, Cl. 99-336.

Lane, Richard L., to Xerox Corporation. Process of activating photoconductive material in glass binder. 3,510,298, 5-5-70, Cl. 96-1.5

Lane, Richard L., to Xerox Corporation. Process of treating a xerographic glass binder plate and product. 3,537,848, 11-3-70, Cl. 96-1.5

Lane, Richard O.: *See—*
Franklin, Robert C.; and Lane, Richard O.,3,528,203.

Lane, Robert E., Jr.: *See—*
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Lane, Robert F., to USM Corporation. Mold assemblies for shoe soles. 3,510,912, 5-12-70, Cl. 18-42.
Harrison, Donald B.; and Lane, Robert,3,542,434.

Lane, Roy M. Celery harvester. 3,548,575, 12-22-70, Cl. 56-327.

Lane, Stanley S.; and Drykerman, George A., to V.I.P. International Scientific Corporation. Hairpiece including relatively rigid and relatively flexible plastic portions. 3,520,309, 7-14-70, Cl. 132-53.

Lane, Walter W., Jr. Urine collectors. 3,499,327, 3-10-70, Cl. 73-421.

Lane, Warren Zeph. Method and apparatus for cutting autogenous tissue for cardiac valve repair. 3,532,016, 10-6-70, Cl. 83-175.

Lane, William J. Carrying case for bottles. 3,531,014, 9-29-70, Cl. 220-65.

Lane, William L.: *See—*
Embree, Milton L.; and Lane, William L.,3,510,771.

Lane, Wyman Curtis. Self-pressurizing feeder head device. 3,513,904, 5-26-70, Cl. 164-356.

Laneres, Jacques Pierre: *See—*
Lunet, Francoise Marie Germaine; Kopp, Georges; Vittecoq, Rene Raymond Julien; and Laneres, Jacques Pierre,3,547,572.

Lanewala, Mohammed A.: *See—*
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Lanex Importing Company: *See—*
Friedman, Sidney L., 3,543,812.

Laney, Henry J. Cleaning system for vessels afloat. 3,541,988, 11-24-70, Cl. 114-222.

Laney, Neill M. Vehicular towed camping trailer. 3,549,196, 12-22-70, Cl. 296-23.

Lanfranconi, Gian Mario, to Pirelli S.p.A. Extruder for sheathing cable cores. 3,487,506, 1-6-70, Cl. 18-13.

Lang, Amanda D.,: *See—*
Hagmann, Foster M., 3,542,382.

Lang, Andrew R., to Burroughs Corporation. Readily replaceable electromagnet. 3,508,182, 4-21-70, Cl. 335-296.

Lang, Armin, to Zahnradfabrik Friedrichshafen Aktiengesellschaft. Power steering apparatus, especially for motor vehicles. 3,509,958, 5-5-70, Cl. 180-79.2

Lang, Daniel L., to Goldentone Electronics, Inc. Telephone timing device. 3,512,355, 5-19-70, Cl. 58-145.

Lang, Daniel, to Goldentone Electronics, Inc. Hearing aid control mounting. 3,549,828, 12-22-70, Cl. 179-107.

Lang, David L.: *See—*
Jensen, Jay Wilter; Lang, David L.; and Ligon, James T.,3,526,432.
Kovacs, Roy F.; Lang, David L.; and Ligon, James T.,3,489,367.

Lang, David W.: *See—*
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Lang Donald J.: *See—*
Bee, Mark W.; Lang Donald J.; and Synder, Alan D.,3,539,996.
McGilvray, Bruce L.; Lang, Donald J.; Boehner, William E.; and Bee, Mark W.,3,533,065.

Lang, Edward J.: *See—*
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Lang, Ellis P., Jr.: *See—*
McCord, Philip D.; and Lang, Ellis P., Jr.,3,499,467.

Lang, Erich: *See—*
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Lang, Ernest U., to National-Standard Company. Wire let-off assembly wire coil package and combined wire coil package and let-off assembly. 3,512,635, 5-19-70, Cl. 206-52.

Lang, Ernest U., to National-Standard Company. Band clutch construction. 3,550,736, 12-29-70, Cl. 192-41.

Lang, Frank C. Method of preventing static charges in printing. 3,542,578, 11-24-70, Cl. 117-14.

Lang, Frederic A., to Du Pont de Nemours, E. I., and Company. Tendons for post-tensioned concrete construction. 3,513,609, 5-26-70, Cl. 52-230.

Lang, Frederic F. Apparatus for lifting and turning a bed patient. 3,506,985, 4-21-70, Cl. 5-81.

Lang, Georges: *See—*
Amengual, Jean; and Lang, Georges,3,494,384.

Lang, Gordon R., to Ferranti-Packard Limited, mesne. Data transmission by pulse width modulation with amplitude adjusted to eliminate DC drift. 3,489,853, 1-13-70, Cl. 178-68.

Lang, Harold M., to Pan American Petroleum Corporation. Spatial filtering system minimizing image degradation due to diffraction at the filter. 3,497,287, 2-24-70, Cl. 350-162.

Lang, Herbert Gotz Dietmar: *See—*
Topfer, Karl Heinz; Schrepel, Walter Dieter; Schwarz, Karl August Arnulf; and Lang, Herbert Gotz Dietmar,3,495,611.

Lang, Hermann: *See—*
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Radebold, Reinhart; and Lang, Hermann,3,525,223.

Lang, Hilde: *See—*
Bauriedel, Friedrich; Franke, Werner; and Lang, Hilde,3,507,859.

Lang, James: *See—*
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Lang, Jean: *See—*
Hess, Walter; Schulz, Hans-Dieter; Lang, Jean; Bauer, Karl-Heinz; and Desfossex, Paul,3,550,675.

Lang, Josef Johann. Decompression device for internal combustion engine. 3,548,799, 12-22-70, Cl. 123-182.

Lang, Joseph F.: *See—*
Celinder, Alf; and Lang, Joseph F.,3,496,832.

Lang, Karl: *See—*
Hock, Fromund; Lang, Karl; and Lussem, Heribert,3,533,702.

Lang, Karl, to Siemens Aktiengesellschaft. Large dynamoelectric machine with a water-cooled rotor. 3,535,565, 10-20-70, Cl. 310-54.

Lang, Kenneth T.; Lucy, Robert F.; and McGann, Edward L., to Sylvania Electric Products, Inc. Optical superheterodyne system employing non-symmetrical waves. 3,509,347, 4-28-70, Cl. 250-199.

Lang, Konrad: *See—*
Horn, Elmar-Manfred; John, Karl; Lang, Konrad; and Schubert, Friedrich,3,505,035.

Lang, Lloyd N., deceased (by Lang, James; administrator). Continuous pulping multizone methods. 3,551,285, 12-29-70, Cl. 162-18.

Lang, Ludwig, to Fitterer, Arno, & Sohn. Apparatus for decontamination of exhaust gases of internal combustion engines. 3,503,714, 3-31-70, Cl. 23-288.

Lang, Pierre, to Bobst, J., et Fils S.A. Folding apparatus for a cardboard blank. 3,529,515, 9-22-70, Cl. 93-49.

Lang, Rene. Process of fabrication of a toy and toy obtained by this process. 3,497,993, 3-3-70, Cl. 46-158.

Lang, Robert J., to Esso Research and Engineering Company. Process for the generation of liquid fogs. 3,539,102, 11-10-70, Cl. 239-4.

Lang, Ronald. Protective garment ventilation system. 3,487,765, 1-6-70, Cl. 98-1.

Lang, Rudolf: *See—*
Fahlenberg, Paul; and Lang, Rudolf,3,507,201.
Fahlenberg, Paul; and Lang, Rudolf,3,526,180.

Lang, Theo O.; and Quist, George F. Injection molding machine. 3,516,123, 6-23-70, Cl. 81-30.

Lang, Walter, to Siemens Aktiengesellschaft. Electronic pulse generator. 3,530,317, 9-22-70, Cl. 310-10.

Lang, Walter; Rehbein, Wendelin; and Appel, Hans, to Gebrueder Honsberg. Machine tool for simultaneously treating several workpieces. 3,498,006, 3-3-70, Cl. 51-105.

Lang, Warren H., to Wellman-Lord, Inc. Process and apparatus for hydraulically separating particulate solids according to particle settling rate. 3,511,375, 5-12-70, Cl. 209-454.

Lang, William J., to Symbolic Displays, Inc. Lighted display unit. 3,509,333, 4-28-70, Cl. 240-11.2

Lang, William J. Method and apparatus for increasing the efficiency of electric generation. 3,523,192, 8-4-70, Cl. 290-52.

Lang, William J. Method and apparatus for generating power. 3,538,340, 11-3-70, Cl. 290-52.

Langbehn, Glenn E. Belt tape reel holder. 3,508,691, 4-28-70, Cl. 224-26.

Langbein, Adolf: *See—*
Merz, Herbert; Schroeder, Hans-Detlef; Langbein, Adolf; and Zeile, Karl,3,536,813.
Merz, Herbert; Schroeder, Hans-Detlef; Langbein, Adolf; and Zeile, Karl,3,536,814.

Langbein, Gerhard: *See—*
Bauer, August; Langbein, Gerhard; and Meininger, Fritz,3,519,616.

Langberg, Edwin, to New England Merchants National Bank of Boston, mesne. Method of using and making a reduced-scale marker from a plurality of reduced-scale patterns which have been formed to have an optically distinguishable edge such as a chamfer. 3,496,372, 2-17-70, Cl. 250-219.

Langberg, Edwin; and Hartai, Antal, to New England Merchants National Bank of Boston, mesne. Automatic marker production system utilizing electro- optical scanning means. 3,497,610, 2-24-70, Cl. 178-6.6

Langdon, Harmon: *See—*
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Langdon, Howard H., to Curlator Corporation. Machine for forming random fiber webs. 3,512,218, 5-19-70, Cl. 19-156.3

Langdon, Jack L.: *See—*
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Langdon, Jack L.; and Pecoraro, Raymond P., to International Business Machines Corporation. Semiconductor device. 3,506,880, 4-14-70, Cl. 317-101.

Lange, Arthur A. Steering device for snowmobiles. 3,550,707, 12-29-70, Cl. 180-5.

Lange, Fritz-Walter, to Schwarzkopf, Hans. Hair dyeing composition and method. 3,536,436, 10-27-70, Cl. 8-10.2

Lange, Fritz; and Dreyer, Gunter, to Deutsche Akademie der Wissenschaften Zu Berlin. Process of diffusing a material in a liquid phase. 3,551,329, 12-29-70, Cl. 210-19.

Lange, Gerd, to Bofinger, Wilhelm, Firma. Piece of furniture. 3,490,809, 1-20-70, Cl. 297-440.

Lange, Gerhard, to Wafios Maschinenfabrik Wagner, Ficker & Schmid G.m.b.H. Method and apparatus for producing a round-link chain. 3,498,050, 3-3-70, Cl. 59-29.

Lange, Gerhardt; and Gabel, Heinz, to Messer Griesheim GmbH. Initiation device for autogenous flame cutting machines. 3,533,442, 10-13-70, Cl. 137-624.18

Lange, Gosta. Acoustic speedmeter (log). 3,541,499, 11-17-70, Cl. 340-3.

Lange, Guenter, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Liquid or low-melting p-aminoazo dyes. 3,534,016, 10-13-70, Cl. 260-207.1

Lange, Guenter; and Wippel, Hans Guenter, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Process for dyeing synthetic linear polyester fibrous textile material blue shades and the dyed material. 3,544,260, 12-1-70, Cl. 8-41.

Lange, Hans-Rudolf: *See—*
Rey, Hans-Georg; Lange, Hans-Rudolf; and Rieckmann, Peter,3,526,479.

Lange, Hans, to Deutsche Erdol-Aktiengesellschaft. Apparatus for obtaining bitumens from underground deposits. 3,512,584, 5-19-70, Cl. 166-57.

Lange, Howard George, to Zenith Radio Corporation. Charging process for electrostatic screening of color tubes. 3,515,548, 6-2-70, Cl. 96-1.

Lange, Howard George; and So, Song Whan, to Zenith Radio Corporation, mesne. Process of electrostatically screening a color cathode-ray tube. 3,489,557, 1-13-70, Cl. 96-1.

Lange, Julius, to Texas Instruments, Incorporated. Interdigitated strip line coupler. 3,516,024, 6-2-70, Cl. 333-10.

Lange, Karl Heinz, to Balda-Kamerawerk Rudolf Gruter, Kommanditgesellschaft. Flash cube indexing systems for cameras. 3,492,929, 2-3-70, Cl. 95-11.

Lange, Karl Heinz, to Balda-Kamerawerk Rudolf Gruter, Kommanditgesellschaft. Rollfilm camera. 3,505,940, 4-14-70, Cl. 95-31.

Lange, Karl Heinz, to Balda Werke Photographische Gerate und Kunststoff, R. Gruter Kommanditgesellschaft. Photographic camera with mutual transport- and exposure-lock. 3,538,824, 11-10-70, Cl. 95-11.

Lange, Karl Heinz, to Balda-Werke Photographische Gerate und Kunststoff R. Gruter KG. Photographic cameras. 3,550,512, 12-29-70, Cl. 95-11.

Lange, Karl, to Hans, Lange. Animal feeding apparatus. 3,525,315, 8-25-70, Cl. 119-71.

Lange, Klaus Peter: *See—*
Mahlo, Heinz; Lange, Klaus Peter; Beckstein, Hellmut; and Schellenberger, Guenter,3,517,204.

Lange, Klaus P.; Molnar, Stefan; and Ziemann, Joachim Hans, to Linde Aktiengesellschaft. Cryosurgical appliance. 3,537,458, 11-3-70, Cl. 128-303.1

Lange, Kurt. Peritoneal dialysis apparatus. 3,520,298, 7-14-70, Cl. 128-213.

Lange, Ludwig H., to Filler Machine Company, Inc., The. Mechanism for feeding and applying circular caps to containers. 3,533,216, 10-13-70, Cl. 53-314.

Lange, Pierre: *See—*
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Lange, Richard, Jr., to Corning Glass Works. Hypodermic syringe. 3,506,006, 4-14-70, Cl. 128-220.

Lange, Richard, Jr., to Corning Glass Works. Container with safety cap. 3,528,581, 9-15-70, Cl. 215-9.

Lange, Robert B. Athletic boot combination. 3,494,054, 2-10-70, Cl. 36-2.5

Lange, Robert B. Offset ski tip. 3,501,160, 3-17-70, Cl. 280-11.13

Lange, Robert E.: *See—*
Van Doorn, Donald W.; Pease, William C., III; Colquett, Jack L.; and Lange, Robert E.,3,548,744.

Lange, Rolf W., to Potter Brothers, Inc. Method and apparatus for vitreous bead manufacture. 3,495,961, 2-17-70, Cl. 65-21.

Lange, Rolland B.; and Dake, George E., Jr., to Anaconda Wire and Cable Company. Wire tensioning apparatus. 3,498,516, 3-3-70, Cl. 226-195.

Lange, Ronald Frederick, to Du Pont de Nemours, E. I., and Company. Production of dyed polyamide filaments containing a phenolic antioxidant. 3,493,633, 2-3-70, Cl. 260-857.

Lange, Wilfried; and Volkmann, Dieter. Safety mechanism for pneumatic fastener driving machines. 3,490,545, 1-20-70, Cl. 173-2.

Lange, William C. Grass trimmer. 3,512,343, 5-19-70, Cl. 56-25.4

Lange, Winthrop E.; Sasmor, Ernest J.; and Halpern, Alfred, to Synergistics, a co-partnership consisting of Sackler, Mortimer D., and Sackler, Raymond D., mesne. Anthrone oxime compounds. 3,538,126, 11-3-70, Cl. 260-351.

Langecker, Erhard, to Gebr. Battenfeld. Device for producing hollow bodies, bottles or the like, of plastics material. 3,504,397, 4-7-70, Cl. 18-5.

Langecker, Erhard. Extrusion press for the manufacture of hoses or tubes made of thermoplastic material. 3,522,629, 8-4-70, Cl. 18-14.

Langemann, Albert: *See—*
Bollag, Werner; Gutmann, Hugo; Hegedus, Balthasar; Kaiser, Ado; Langemann, Albert; Muller, Marcel; and Zeller, Paul,3,520,926.
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Langen & Co.: *See—*
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Strauff, Gunter, 3,523,420.

Langen, H. J., & Sons Canada Ltd.: *See—*
Langen, Hermann Josef, 3,548,890.

Langen, Hermann Josef, to Langen, H. J., & Sons Canada Ltd. Meat pressing machine and process. 3,548,890, 12-22-70, Cl. 141-7.

Langenbeck, Peter, to Bobis, Daniel H. Apparatus for measuring and monitoring blood pressure. 3,542,011, 11-24-70, Cl. 128-2.05

Langenberger, Helmut, to Walther-Buromaschinen GmbH. Rotary serial printer for data processing machines. 3,542,182, 11-24-70, Cl. 197-18.

Langenberger, Helmut; and Kruse, Hans, to Walther-Buromaschinen G.m.b.H. Electric switch key mounting. 3,524,975, 8-18-70, Cl. 235-145.

Langendorf, Matthew P.; and Ridings, Charles L., to International Business Machines Corporation. Tone actuated dictation systems with voice buffer. 3,549,821, 12-22-70, Cl. 179-100.1

Langendorf, Matthew P.; Ridings, Charles L.; and Sebastian, William H., to International Business Machines Corporation. Remote dictation apparatus with automatic control tone elimination. 3,524,026, 8-11-70, Cl. 179-100.2

Langendorf, Matthew P.; and Sebastian, William H., to International Business Machines Corporation. Tone detection circuit. 3,539,829, 11-10-70, Cl. 307-233.

Langendorf Watch Co.: *See—*
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Langenecker, Bertwin: *See—*
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Langenfeld, Frank H., to Monsanto Company. Functional fluid compositions. 3,513,097, 5-19-70, Cl. 252-78.

Langenhoff, Fred: *See—*
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Langenhop, John H.: *See—*
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Langensiepen, Max, Kom. Ges.: *See—*
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Langer, Alfred C. Fastener. 3,528,690, 9-15-70, Cl. 287-20.927

Langer, Alois: *See—*
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Langer, Arthur W., Jr., to Esso Research and Engineering Company. Lithiated-amine polymerization catalyst. 3,536,679, 10-27-70, Cl. 260-83.1

Langer, Arthur W., Jr., to Esso Research and Engineering Company. Crystalline organolithium-tertiary chelating polyamine complexes. 3,541,149, 11-17-70, Cl. 260-563.

Langer, Dieter: *See—*
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Langer, Erik: *See—*
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Langer, Erik, to Siemens Aktiengesellschaft. N-path filter. 3,531,741, 9-29-70, Cl. 333-70.

Langer, Erik, to Siemens Aktiengesellschaft. AM-FM N-path filter arrangement with center frequency and band width adjustments. 3,551,857, 12-29-70, Cl. 333-70.

Langer, Heinz. Seitz-Asbest-Werke, Theo & Geo Seitz Package for shipping large surface filter layers. 3,547,457, 12-15-70, Cl. 280-47.13

Langer, Horst Erwin, to Maschinenfabrik Augsburg-Nurnberg A.G. Apparatus for the manufacture of molds for casting metals. 3,543,832, 12-1-70, Cl. 164-203.

Langer, Horst G.; and Blut, Almut H., to Dow Chemical Company, The. Complexes of organic sulfoxides and hydrogen chloride and related sulfonium salts. 3,488,378, 1-6-70, Cl. 260-456.

Langevin, George E.: *See—*
Sleith, Robert W.; and Langevin, George E.,3,498,268.

Langevin, Robert Z.: *See—*
Keiser, Samuel L.; and Langevin, Robert Z.,3,495,152.

Langewis, Cornelis: *See—*
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Langford, Melvin O.: *See—*
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Langford, Obie M., to Texaco Inc. Well logging system. 3,518,623, 6-30-70, Cl. 340-18.

Langheck, Richard, to Wilhelm Sihn jun K. G. Antenna attachment base for vehicles. 3,544,140, 12-1-70, Cl. 287-20.

Langheinrich, Klaus: *See—*
Klesper, Herbert; Steinfatt, Fritz; Lorenz, Walter; and Langheinrich, Klaus,3,522,265.

Langher, Ralph R.; Walling, John C.; and McFadden, Russell T., to Dow Chemicals Company, The. Synthesis of 3-chloro-2-hydroxypropyl quaternary ammonium salts. 3,532,751, 10-6-70, Cl. 260-567.6

Langhjelm, Henrik G.; Bergishagen, Finn; and Hutchinson, Kenneth A., to Bahl Associates. Full discharge dispensing container. 3,521,795, 7-28-70, Cl. 222-386.

Langhoff, Friedrich-Wilhelm: *See—*
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Langis, Andre L., to American Home Products Corporation. 1,3-Disubstituted-Δ^2,1,2,4-triazolin-5-one-4- acetic acids. 3,499,000, 3-3-70, Cl. 260-308.

Langis, Andre L., to American Home Products Corporation. Derivatives of 1,4-benzothiazine. 3,503,965, 3-31-70, Cl. 260-243.

Langis, Andre L., to American Home Products Corporation. Substituted 1, 3, 4-benzotriazepin-5H-5-ones. 3,542,767, 11-24-70, Cl. 260-239.3

Langkamp, Richard B., to Bausch & Lomb Incorporated. Power supply circuit. 3,502,896, 3-24-70, Cl. 307-31.

Langland, Herbert Z., to Allis-Chalmers Manufacturing Company. Hydraulic cylinder. 3,494,652, 2-10-70, Cl. 292-256.63

Langlet, Jean; and Andre, Joseph Gustave Etienne, to Callisto, La Garenne, and Sud-Aviation. Bellows bonded at inner peripheral edges. 3,540,353, 11-17-70, Cl. 92-34.

Langley, Lawrence W.: *See—*
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Langley, Lawrence W., to Corning Glass Works. Electronic timepiece. 3,541,779, 11-24-70, Cl. 58-50.

Langley London Limited: *See—*
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Langley, Robert C.; Lindenthal, John W.; Myers, Herbert; and Straschil, Heinrich K., to Engelhard Minerals & Chemicals Corporation. Apparatus for gas separation. 3,499,265, 3-10-70, Cl. 55-158.

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Langlitz, Karl-Heinz: *See—*
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Langlois, Guy B.: *See—*
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Langlois, Henry J., to American Standard, Inc. Fluid coupling using water. 3,521,451, 7-21-70, Cl. 60-54.

Langlois, Roland E.; and Pitt, Richard E., to Owens-Corning Fiberglas Corporation. Non-uniform motion producing structure for producing fibrous mats. 3,546,898, 12-15-70, Cl. 65-2.

Langlykke, Asger F.: *See—*
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Langmann, Werner: *See—*
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Langmann, Werner; Pantke, Hellmuth; Hendricks, Udo-Winfried; and Quaedvlieg, Mathieu, to Farbenfabriken Bayer Aktiengesellschaft. Process for the dyeing of synthetic polyamide and fabric from an acid dyebath fibres containing an aminoxide. 3,524,205, 8-18-70, Cl. 8-172.

Langmuir, Dean Bruce, to Scott, H. H., Inc. Transistor amplifier simultaneous checking and protecting method and apparatus. 3,525,049, 8-18-70, Cl. 330-2.

Langnau, Kurt; Hennig, Walter; Strehle, Horst; and Schulze, Heinz, to VEB Pentacon Dresden Kamera- und Kinowerke. Photographic camera with adjustable film speed control. 3,524,392, 8-18-70, Cl. 95-10.

Langner, Carl G.: *See—*
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Langowski, Faustyn C.; and Turner, John W., Jr., to Jackson, Byron, Inc. Link stabilizer for well drilling rigs. 3,526,425, 9-1-70, Cl. 294-82.

Langrod, Kasimir, to North American Rockwell Corporation. Thermoelectric device including conductive granules for obtaining low resistance bonds. 3,506,498, 4-14-70, Cl. 136-237.

Langsenkamp, F. H., Company: *See—*
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Langston, Ambrose C. Sheet folding device. 3,538,555, 11-10-70, Cl. 24-81.

Langston Company, The: *See—*
Goettsch, Walter J., 3,508,460.
Kulwicki, Henry E.; and Gugolz, Henry J., 3,499,370.

Langston, John T. Washing machine. 3,505,836, 4-14-70, Cl. 68-210.

Langstrom, Hakon Olof Scheibe, to Antiebolaget Svenska Kullagerfabriken. Cage for rolling bearings. 3,539,231, 11-10-70, Cl. 308-187.

Langstrom, Hakon Olof Scheibe, to Aktiebolaget Svenska Kullagerfabriken. Rolling bearing. 3,540,785, 11-17-70, Cl. 308-187.

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Langwell, Jon D., to Witrick, Louis, mesne. Staple fastener. 3,527,477, 9-8-70, Cl. 281-25.

Lanham, Charles W., Jr., to Entron, Inc. Coaxial cable connection means. 3,538,487, 11-3-70, Cl. 339-95.

Lanham, Charles W., Jr.: *See—*
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Lanham, Gilbert, to Bendix Corporation, The. Device for rotatably holding a braking member having opposed braking surfaces for machining said surfaces. 3,540,165, 11-17-70, Cl. 51-237.

Lanier Electronic Laboratory, Inc.: *See—*
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Lanier, William R.: *See—*
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Lanigan, Edward J., Jr.; and Sweeney, Joseph J., to Allied Van Lines, Inc. Inventory control device. 3,489,433, 1-13-70, Cl. 283-55.

Lanigan, James P., Jr.: *See—*
Kotter, James I.; Salaun, Harold L., Jr.; Wallace, Eugene F.; and Lanigan, James P., Jr.,3,519,153.

Lanius, James Curtis, Jr., to Illinois Tool Works Inc. Thread-cutting nut. 3,501,995, 3-24-70, Cl. 85-32.

Lankard, John R.; and Sorokin, Peter P., to International Business Machines Corporation. Dye laser. 3,541,470, 11-17-70, Cl. 331-94.5

Lankelma, Herman Peter, Jr., to Gillette Comany, The. Pressurized cosmetic container. 3,519,170, 7-7-70, Cl. 222-212.

Lankenau, William: *See—*
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Lankes & Schwarzler, Firma: *See—*
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Lankes, Richard; and Imhof, Anton, to Compur-Werk Gesellschift mit beschrankter Haftung & Co. Clamping device for microtome knives. 3,527,133, 9-8-70, Cl. 83-699.

Lankford, Albert L.: *See—*
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Lankford, Ivan J., to Peerless Instrument Co. Remote starter for automotive vehicles. 3,507,259, 4-21-70, Cl. 123-179.

Lankford, John L.; Seigel, Arnold E.; and Wilson, Robert E., to United States of America, Navy. Omnidirectional blast wave sensor. 3,499,311, 3-10-70, Cl. 73-35.

Lankford, Larry G.: *See—*
Bederman, Seymour; and Lankford, Larry G.,3,538,590.

Lankin, Richard, to Borite Manufacturing Corporation. Milling cutter and blade assembly. 3,509,612, 5-5-70, Cl. 29-105.

Lankro Chemical Limited: *See—*
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Lanman, Robert K., to Armorlite Lens Company, Inc. Spacer for use in supporting lens blank during finishing. 3,490,182, 1-20-70, Cl. 51-216.

Lanmon, C. P., II, to Schlumberger Technology Corporation. Formation-sampling apparatus. 3,550,699, 12-29-70, Cl. 175-78.

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Lanner, Arthur W.; Kalberg, John N.; and Walker, George B., to Procter & Gamble Company, The. Reaction products of primary alkyl amines and epichlorohydrin. 3,497,556, 2-24-70, Cl. 260-584.

Lanning Equipment Corporation: *See—*
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Lanning, Maxwell. Storage vessel with self-contained weighing apparatus. 3,494,436, 2-10-70, Cl. 177-144.

Lannum, Earl R. Apparatus for testing radar magazines. 3,490,014, 1-13-70, Cl. 340-267.

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Lanphier, Edward H.; and Morin, Richard A., to United States of America, Navy, mesne. Horizontal wet-dry pressure chamber. 3,548,516, 12-22-70, Cl. 35-29.

Lansch, John L. Voltage monitoring circuit. 3,513,353, 5-19-70, Cl. 317-31.

Lansch, John. Power protection apparatus. 3,525,019, 8-18-70, Cl. 317-27.

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Lansky, Zdenek J.; Leibfritz, Kurt W.; and Malinowski, Lester W., to Parker-Hannifin Corporation. Fluid distributing manifold for directional control valve. 3,550,621, 12-29-70, Cl. 137-608.

Lante, Leonhard M., to McDonnell Douglas Corporation. Photoconductive circuit for measuring capacity of electrical cells. 3,515,983, 6-2-70, Cl. 324-29.5

Lanternier, Andre, to DeWendel & Cie Societe Anonyme. Flanged structural assembly. 3,517,474, 6-30-70, Cl. 52-732.

Lanthier, Raymond, to Gulf Oil Canada Limited. Continuous vinyl polymerization process. 3,551,396, 12-29-70, Cl. 260-85.7

Lantz, Andre; and Weiss, Francis, to Ugine Kuhlmann. Process for the preparation of ε-caprolactone. 3,523,955, 8-11-70, Cl. 260-343.

Lantz, William L.; and Manasia, Joseph P., to Shell Oil Company. Powdered heat curable epoxy resin compositons, and their preparation. 3,533,985, 10-13-70, Cl. 260-37.

Lantz, William L.; and Manasia, Joseph P., to Shell Oil Company. Heat-curable solution coating compositions of an epoxy-amine adduct and an imidazole, their preparation and use. 3,536,654, 10-27-70, Cl. 260-33.6

Lantz, William L.; and Manasia, Joseph P., to Shell Oil Company. Powdered heat-curable compositions of (1) an epoxy- amine adducts, (2) an anhydride and (3) an imidazole. 3,538,039, 11-3-70, Cl. 260-37.

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Lanux, Claude Pascal, to La Telemecanique Electrique. Box for cartridge fuses with fuse ejector. 3,518,599, 6-30-70, Cl. 337-186.

Lanz, Sigward: *See—*
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Lanza, Alberto; Milan, Tiziano; and Paracchini, Mario, to Bemberg S.p.A. Device for replacing the plastic material sheaths of cylindrical spools and method therefor. 3,530,565, 9-29-70, Cl. 29-401.

Lanza, Conrad, to International Business Machines Corporation. Solid state oscillator having large microwave output. 3,535,654, 10-20-70, Cl. 331-107.

Lanza, Vincent L.: *See—*
Heslop, William Rosse; Lanza, Vincent L.; and Stivers, Edward C.,3,539,411.

Lanzani, Gian Antonio: *See—*
Salvemini, Antonio; Sequi, Paolo; Marchesini, Augusto; Benedetti, Luigi; and Lanzani, Gian Antonio,3,488,179.

Lanzenberger, Horst, to Friedrich Deckel Prazisions Mechanik und Maschinenbau. Driving means for vertical ball-roll spindles. 3,543,598, 12-1-70, Cl. 74-424.8

Lanzo, Rosario, to Montecatini Edison S.p.A. Polymerization of acrylonitrile styrene and alphamethylstyrene. 3,491,071, 1-20-70, Cl. 260-80.78

Lanzoni, Gianluigi. Two-fluid heat exchanger. 3,499,484, 3-10-70, Cl. 165-159.

Lanzoni, Gianluigi. Multi-way valve device for adjusting heat exchange apparatus. 3,503,422, 3-31-70, Cl. 137-625.29

Laos, Ivar: *See—*
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Laos, Ivar, to Searle, G. D., & Co.17-Oxygenated 2-halo-4-(methyl/methylene) -5α-androst-1-en-3-ones and precursors. 3,514,448, 5-26-70, Cl. 260-239.55

La Padura, Natale P. Decorative and/or structural material. 3,512,327, 5-19-70, Cl. 52-612.

La Patta, Robert: *See—*
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Lapertosa, Samuel P., to National Bank Book Company, Inc. Posting tray cabinet for data processing record cards and the like. 3,528,716, 9-15-70, Cl. 312-183.

Lapham, Karyn L.; and Shea, Philip J., to Dow Chemical Company, The. Rodent baiting with anticoagulant halopyridine derivatives. 3,544,677, 12-1-70, Cl. 424-17.

Lapham, Sidney D., to Roll-Rite Corporation. High capacity caster. 3,547,459, 12-15-70, Cl. 280-79.2

Lapi, John: *See—*
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Lapidas, Manuel, to Lamautex Corporation. High speed winder. 3,544,019, 12-1-70, Cl. 242-43.

Lapides, Jules S., to Air Products and Chemicals, Inc. Using added ammonia during deammoniation to cracking catalyst containing hydrogen faujasite. 3,541,027, 11-17-70, Cl. 252-455.

Lapidot, Mordecai; Eisenberg, Eliahu; Kahan, Ralph S.; and Foa, Eliahu, to Isotopes & Radiation Enterprieses (Isorad) Ltd. Preservation and recovery of the sugar content of sugar beets. 3,522,091, 7-28-70, Cl. 127-43.

Lapidus, Milton, to American Home Products Corporation. Adsorbent for chromatographic purification of virus. 3,509,070, 4-28-70, Cl. 252-437.

Lapidus, Milton; Grant, Norman H.; and Alburn, Harvey E., to American Home Products Corporation. Prostaglandin purification process. 3,504,019, 3-31-70, Cl. 260-514.

Lapidus, Milton; Grant, Norman H.; Rosenthale, Marvin E.; and Alburn, Harvey E., to American Home Products Corporation. Prostaglandin ureides. 3,501,525, 3-17-70, Cl. 260-553.

Lapidus, Milton; Grant, Norman H.; Rosenthale, Marvin E.; and Alburn, Harvey E., to American Home Products Corporation. Prostaglandin thiosemicarbazones, 1-ester and 1-carbinol derivatives thereof. 3,504,020, 3-31-70, Cl. 260-514.

La Pierre, Raymond J., to Merck & Co., Inc. Complexes of 2-substituted benzimidazoles and bis-halogenated phenols in anthelmintic compositions and methods. 3,546,341, 12-8-70, Cl. 424-270.

Lapine, Norman F., Sr.: *See—*
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Laplume, Jacques, to Societe d'Etudes Techniques et d'Entreprises Generales 'Sodeteg'. Identifying system using optical codes. 3,532,859, 10-6-70, Cl. 235-61.11

Lapointe, Joseph Andrew, to Domtar Limited. Knife grinder. 3,498,002, 3-3-70, Cl. 51-3.

LaPointe, Joseph Andrew, to Domtar Limited. Qn-feed for chippers. 3,526,259, 9-1-70, Cl. 144-172.

Lapointe Machine Tool Company, Limited, The: *See—*
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La Porta, John J., to Spedcor Electronics, Inc., mesne. Time measuring system. 3,509,473, 4-28-70, Cl. 328-72.

Laporte Chemicals Limited: *See—*
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Parkin, Christopher; Hildon, Anthony M.; and Proctor, Peter J., 3,531,519.

La Porte, Gordon. Vertically slidable door. 3,543,441, 12-1-70, Cl. 49-450.

Laporte Industries Limited: *See—*
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Lappala, Risto P.: *See—*
Bjorksten, Johan A.; Cox, Robert P.; Lappala, Risto P.; and Yaeger, Luther L.,3,510,390.

Lappin, Gerald Ray; Kibler, Charles J.; Gilmer, John C.; and Jones, Glenn C., to Eastman Kodak Company. Dyeable polyesters containing units of an alkali metal salts of an aromatic sulfonic acid or ester thereof. 3,528,947, 9-15-70, Cl. 260-75.

Lappin, Gerald R.: *See—*
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Newland, Gordon C.; and Lappin, Gerald R.,3,519,599.

Lappin, Gerald R.; and Newland, Gordon C., to Eastman Kodak Company. Light stable polyurethane. 3,499,869, 3-10-70, Cl. 260-45.75

Lappin, Kenneth R.: *See—*
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Lappin, Richard J.: *See—*
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La Presle, Claude: *See—*
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Lapsevskis, Vilnis; and Svensson, Ake B.F., to Telefonaktiebolaget L M Ericsson. Single-wire control, supervision and fault detecting circuit arrangement in computer controlled automatic telephone exchanges. 3,509,284, 4-28-70, Cl. 179-18.

Lapsevskis, Vilnis; and Svensson, Ake Bertil Fredrik, to Telefonaktiebolaget L M Ericsson. Supervisory arrangement for detecting faults in means for selecting crossing points corresponding to switching means in a reading matrix in a telecommunication system controlled by computers. 3,492,446, 1-27-70, Cl. 179-175.21

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Ashratova, Sofia Kemalevna; Atkarsky, Anatoly Alexandrovich; Lapshin, Vladimir Pavlovich; Novikov, Vladimir Sergeevich; Dovalgo, Yan Iosifovich; Basova, Ljudmila Alexandrovna; Bogdanov, Viktor Alexandrovich; Kamanin, Mikhail Andreevich; and Khanin, Boris Grigorievich,3,518,850.

Laput, Peter. Polarizing color filter for use in color television systems. 3,544,193, 12-1-70, Cl. 350-150.

Lapuyade, Robert Henri, to Societe des Accumulateurs Fixes et de Traction (Societe Anonyme). Charging device for electrochemical generators. 3,517,295, 6-23-70, Cl. 320-32.

Laran, Roy J.: *See—*
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Laran, Roy J.; Giraitis, Albert P.; and Kobetz, Paul, to Ethyl Corporation. Process for the production of anhydrous hydrogen fluoride. 3,501,268, 3-17-70, Cl. 23-153.

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Larchar, Trescott B., Sr.; Heying, Theodore L.; and Papetti, Stelvio, to Olin Mathieson Chemical Corporation. Process for curing polycarboranylenesiloxanes. 3,501,435, 3-17-70, Cl. 260-37.

Larcher, Angelo C. Football shoe. 3,513,571, 5-26-70, Cl. 36-67.

Lard, Edwin W.: *See—*
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Lard, Edwin W.; and Orgell, Carl W., to Grace, W. R., & Co. Process for flameproofing combustible materials. 3,540,892, 11-17-70, Cl. 106-15.

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Largman, Theodore; and Newallis, Peter E., to Allied Chemical Corporation. Indoline phosphates useful as insecticides. 3,517,027, 6-23-70, Cl. 260-326.11

Lari, Ioan, to Ministerul Petrolului: Drill-steam. 3,525,237, 8-25-70, Cl. 64-1.

Laridon, Urbain Leopold: *See—*
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Laridon, Urbain Leopold; Delzenne, Gerard Albert; and Verelst, Johan Lodewijk, to Gevaert-Agfa N.V. Copying material for use in the photochemical preparation of printing plates. 3,494,767, 2-10-70, Cl. 96-33.

Laridon, Urbain Leopold; Delzenne, Gerard Albert; Verelst, Johan Lodewijk; and Van Goethem, Hugo Vital, to Gevaert-Agfa N.V. Copying material for use in the photochemical preparation of printing plates. 3,495,979, 2-17-70, Cl. 96-33.

Delzenne, Gerard Albert; and Laridon, Urbain Leopold,3,502,470.

Delzenne, Gerard Albert; and Laridon, Urbain Leopold,3,522,045.

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Larkin, Artemas M.: *See—*
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Larkin, Edward F.; Dubey, Leon B.; and Faeder, Gustav. Privacy/windbreak screen. 3,487,842, 1-6-70, Cl. 135-5.

Larkin, Francis J. Waste treatment apparatus. 3,516,545, 6-23-70, Cl. 210-195.

Larkin, Frank L.; and Hull, William T., Jr., to Monsanto Company. Drawing and heat relaxing ylong yarn. 3,493,646, 2-3-70, Cl. 264-290.

Larkin, George L., Jr.: *See—*
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Larkin, John M.; and Kreuz, Kenneth L., to Texaco Inc. Preparation of nitroolefins. 3,510,531, 5-5-70, Cl. 260-644.

Larkin, John M.; and Lachowicz, Donald R., to Texaco Inc. Preparation of halonitroalcohols. 3,541,162, 11-17-70, Cl. 260-633.

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Larkin, Mark E.: *See—*
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Larkin, Robert E., to Cutler-Hammer, Inc. Switch assembly or adjustable speed tool. 3,530,319, 9-22-70, Cl. 310-50.

Larking, Ernest Alfred Reginald. Storage devices. 3,547,506, 12-15-70, Cl. 312-222.

Larko, Robert C.: *See—*
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Larks, Leonard, to Hycon Mfg. Company. Automatic focus detector. 3,511,156, 5-12-70, Cl. 95-45.

La Rocca, Aldo V. Layered propellant composition consisting of an electrical conductor and an insulator. 3,549,436, 12-22-70, Cl. 149-15.

LaRocca, Clement; and Schwartz, Bernard, to Parke, Davis & Company. Package comprising space stuffer means comprising free flowing bodies in flexible bag means. 3,515,267, 6-2-70, Cl. 206-46.

Laroche Navarron, Marguerite, to Laboratoires Laroche Navarron. Triterpene derivatives, process for preparing same, and applications thereof. 3,551,408, 12-29-70, Cl. 260-210.

Laroche, Serge. Compound curved building elements attached end to end. 3,495,369, 2-17-70, Cl. 52-608.

La Roche, Ulrich, to Contraves AG. Slutter for increasing contrast of Moire patterns. 3,488,512, 1-6-70, Cl. 250-237.

La Roche, Ulrich, to Contraves AG. Suppression of schlieren phenomena. 3,510,193, 5-5-70, Cl. 350-63.

La Roche, Ulrich. Theodolite arrangement, particularly for tracking flying objects. 3,532,410, 10-6-70, Cl. 350-19.

La Rock, Arthur, Jr. Tractor rig. 3,512,802, 5-19-70, Cl. 280-405.

La Rosa, Richard, to Hazeltine Research, Inc. Interference discriminating apparatus. 3,495,244, 2-10-70, Cl. 343-17.1

la Roy, Dick, to N.V. Hollandse Signaalapparaten. Method for making a contact bank for a switching device. 3,496,073, 2-17-70, Cl. 204-15.

Larpenteur, Bernard J.; and Pasquali, Joseph W., to Bethlehem Steel Corporation. Method of recovering iron oxide from fume containing zinc and/or lead and sulfur and iron oxide particles. 3,547,623, 12-15-70, Cl. 75-25.

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Isreeli, Jack; and Larrabee, Edward W.,3,531,203.

Larriva, Michael T., to International Business Machines Corporation. Current mode exclusive-OR invert circuit. 3,519,845, 7-7-70, Cl. 307-216.

Larrowe, Ronald A.; and Warning, Theodore J., to U.S. Filter Corporation. Flow nozzle assembly for upflow filters. 3,498,462, 3-3-70, Cl. 210-289.

Larry, Carroll L. Display fixture for supporting components of a mechanical assembly. 3,493,123, 2-3-70, Cl. 211-176.

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Larsen, Arthur B.: *See—*
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Larsen, Bendt Wegge; Valbjorn, Knud V.; and Holme, Bent Melchior Karlsen, to Danfoss A/S. Vertical crankshaft for a motor compressor. 3,491,939, 1-27-70, Cl. 230-206.

Larsen, Bendt Wegge: *See—*
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Larsen, Christian M.: *See—*
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Larsen, Dorwin R.: *See—*
Gee, James E.; and Larsen, Dorwin R.,3,507,060.

Larsen, Earl I., to Mallory, P. R., & Co., Inc. Method of making dispersion-strengthened ductile materials. 3,515,542, 6-2-70, Cl. 75-122.5

Larsen, Eric R.; Andrejewski, Bernard R.; and Nelson, Donald L., to Dow Chemical Company, The. Self-extinguishing polyester compositions of 2,2- bis(bromomethyl)-1,3-propanediol and method of making the same. 3,507,933, 4-21-70, Cl. 260-869.

Larsen, Eric Russell: *See—*
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Larsen, Gunnar H.: *See—*
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Larsen, Howard F., to Donnelley, R. R., & Sons Company. Protective container for books and the like. 3,516,593, 6-23-70, Cl. 229-33.

Larsen, Jack: *See—*
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Larsen, John E.; and Van Derzee, Harold R., deceased (by Van Derzee, Ruth T.; executrix), to General Electric Company. Apparatus for attaining the desired configurations of electrical coils. 3,487,526, 1-6-70, Cl. 29-205.

Larsen, Lester J.: *See—*
Howard, Donald W.; and Larsen, Lester J.,3,535,004.

Larsen, Ludolph M.: *See—*
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Larsen, Lyle V., to Chicago Bridge & Iron Company. Quick opening closure using split shear studs. 3,549,186, 12-22-70, Cl. 292-256.71

Larsen, Norbert, to Lee, Raymond, Organization, Inc., The. Outdoor gym set with plural water spray heads. 3,539,181, 11-10-70, Cl. 272-56.5

Larsen, Olaf E.; and Griffin, Robert H., to Phillips Petroleum Company. Anti-oxidant free 1-olefin coated metal substrate and method for coating same. 3,527,667, 9-8-70, Cl. 161-216.

Larsen, Olaf E.: *See—*
Stephens, James R.; and Larsen, Olaf E.,3,495,301.
Williams, George E.; and Larsen, Olaf E.,3,497,588.

Larsen, Orvis V.: *See—*
Edwards, Gayle D.; and Larsen, Orvis V.,3,498,921.

Larsen, Otis M. Vernier attachment for combination square. 3,533,165, 10-13-70, Cl. 33-95.

Larsen, Raymond B., to Datel Corporation, mesne. Digital pulse motor control circuit. 3,514,679, 5-26-70, Cl. 318-314.

Larsen, Raymond B.; and Jacobson, Donley P. Frequency coded digital recording system. 3,548,404, 12-15-70, Cl. 340-347.

Larsen, Reidar G.: *See—*
Sarazen, John C.; Pierini, John M.; and Larsen, Reidar G.,3,517,376.

Larsen, Richard C.; and May, Jim. Dimensional cutting saw apparatus. 3,548,896, 12-22-70, Cl. 143-47.

Larsen, Robert N., to United States of America, Atomic Energy Commission. Pulse-stretching circuit. 3,510,691, 5-5-70, Cl. 307-267.

Larsen, Roy, to Thiokol Chemical Corporation. Stabilized poly(ethylene sulfide) compositions. 3,519,598, 7-7-70, Cl. 260-45.75

Larsh, Everett P.: *See—*
Adams, Earl G.; Eveleth, Edmund L.; and Larsh, Everett P.,3,497,167.

Larson, Albert L.: *See—*
Jacobson, Alden H.; and Larson, Albert L.,3,503,283.

Larson, Andrew H., to Dow Chemical Company, The. Preparation of anhydrous magnesium chloride. 3,493,333, 2-3-70, Cl. 23-91.

Larson, Charles O., to Larson, Chas. O., Co. Shelf support. 3,489,290, 1-13-70, Cl. 211-148.

Larson, Charles O., to Larson, Chas. O., Co. Article support construction. 3,489,382, 1-13-70, Cl. 248-223.

Larson, Charles O., to Larson, Chas. O. Turnbuckle. 3,489,443, 1-13-70, Cl. 287-60.

Larson, Charles O., to Larson, Chas O., Co. Article support construction. 3,494,585, 2-10-70, Cl. 248-223.

Larson, Charles O., to Larson, Chas. O., Co. Stapling machine. 3,510,043, 5-5-70, Cl. 227-113.

Larson, Charles O., to Larson, Chas. O., Co. Adjustable hanger device. 3,534,864, 10-20-70, Cl. 211-57.

Larson, Chas. O.: *See—*
Larson, Charles O., 3,489,443.

Larson, Chas. O., Co.: *See—*
Larson, Charles O., 3,489,290.
Larson, Charles O., 3,489,382.
Larson, Charles O., 3,494,585.
Larson, Charles O., 3,510,043.
Larson, Charles O., 3,534,864.

Larson, Clarence E.: *See—*
Anthony, Ralph J.; Larson, Clarence E.; and Gates, Robert H.,3,517,424.

Larson, Clarence L.: *See—*
Dukatz, Eugene H.; Flanigan, John L.; and Larson, Clarence L.,3,522,422.

Larson, Curtis A.; and Ullmer, Richard J., to International Business Machines Corporation. Floating throat knife. 3,531,106, 9-29-70, Cl. 271-36.

Larson, Daniel A., to Westinghouse Electric Corporation. High pressure mercury vapor discharge lamp containing lead iodide. 3,513,344, 5-19-70, Cl. 313-25.

Larson, Daniel A.; Smith, John D.; and Martin, Jack, to Westinghouse Electric Corporation. Method of dosing incandesible lamps with halogen. 3,510,189, 5-5-70, Cl. 316-3.

Larson, Dennis H.: *See—*
Rosenberg, Robert B.; and Larson, Dennis H.,3,516,773.

Larson, Dennis Luverne: *See—*
Youngberg, Charles Harold; Larson, Dennis Luverne; and Swales, Barton Lee,3,515,223.

Larson, Donald J., to Caterpillar Tractor Company. Mounting linkage for rippers. 3,503,456, 3-31-70, Cl. 172-484.

Larson, Donald J. Coupling for a spirally seamed pipe. 3,549,181, 12-22-70, Cl. 285-390.

Larson, Eugene P.; and Slick, Edward C., to Sylvania Electric Products, Inc. Surface preparation of iron-chromium alloy parts for metal-to-glass seals. 3,526,550, 9-1-70, Cl. 148-6.35

Larson, Fred. Retractable landing gear without hydraulic means. 3,532,307, 10-6-70, Cl. 244-102.

Larson, Glenn E., to Bell Telephone Laboratories, Incorporated. Character timing and readout of dual-rail shift register. 3,509,327, 4-28-70, Cl. 235-154.

Larson, Glenn F. Precipitation rate gage for sprinkler irrigation systems. 3,526,201, 9-1-70, Cl. 116-114.

Larson, Harry L., to Goodyear Tire & Rubber Company, The. Antioxidant compositions, their use in polymers and products made therefrom. 3,535,249, 10-20-70, Cl. 260-23.

Larson Industries, Inc.: *See*—
Hegg, Allan, 3,531,809.

Larson International Corporation: *See*—
Larson, Robert W.; and Larson, Jerome M., 3,550,801.

Larson, Jack Q.; and Mikovec, John S. Weighted whirling loop. 3,528,654, 9-15-70, Cl. 272-74.

Larson, Jerome M.: *See*—
Larson, Robert W.; and Larson, Jerome M.,3,550,801.

Larson, John C., to Rotron Incorporated. Journal bearing system. 3,510,179, 5-5-70, Cl. 308-114.

Larson, John C.: *See*—
Hubbard, Albert B.; Larson, John C.; Larys, Bohumir A.; and Smith, Lewis F.,3,545,890.

Larson, Kenneth R., to Snap-On Tools Corporation. Preset adjustable torque measuring devices of the braille type. 3,487,732, 1-6-70, Cl. 81-52.5

Larson, Kenneth R., to Snap-On Tools Corporation. Torque measuring wrench of the torsion type. 3,496,767, 2-24-70, Cl. 73-139.

Larson, Kenneth R., to Snap-On Tools Corporation. Dead weight checking attachment for calibrated torque wrench testing apparatus. 3,498,103, 3-3-70, Cl. 73-1.

Larson, Kenneth R., to Snap-on Tools Corporation. Pre-set torqueing devices for measured fastener turning. 3,535,958, 10-27-70, Cl. 81-52.4

Larson, Kenneth W., to Aerojet-General Corporation. Pressure operable storage and expulsion container. 3,504,827, 4-7-70, Cl. 222-95.

Larson, Lester M. Thermoplastic splint or cast. 3,490,444, 1-20-70, Cl. 128-90.

Larson, Lewis G., to Phillips Petroleum Company. Conversion of olefins. 3,546,314, 12-8-70, Cl. 260-683.

Larson, Louis A.: *See*—
Johns, Norman P.; Kobe, Clyde M.; and Larson, Louis A.,3,522,486.

Larson, Paul A.: *See*—
Davis, Lem, Jr.; Larson, Paul A.; and McFadden, Russell T.,3,538,185.
Barstow, Frederick E.; Larson, Paul; and Salomon, Udo W.,3,548,411.

Larson, Phyllis Marion. Menstrual panty. 3,489,149, 1-13-70, Cl. 128-288.

Larson, Phyllis M. Supporting undergarment for men. 3,511,234, 5-12-70, Cl. 128-159.

Larson, Ralph H., to I-T-E Imperial Corporation, mesne. Fluid valve. 3,490,474, 1-20-70, Cl. 137-81.5

Larson, Raymond C., Sr.; and Morrone, Charles A. Fuel atomizing unit. 3,544,290, 12-1-70, Cl. 48-180.

Larson, Richard C. Conditioning system. 3,498,536, 3-3-70, Cl. 236-1.

Larson, Richard C.; and Reiter, Alfred W., to International Harvester Company. Foot accelerator attachment for farm and industrial tractor. 3,535,951, 10-27-70, Cl. 74-482.

Larson, Richard L.: *See*—
Kittredge, John B.; and Larson, Richard L.,3,504,124.

Larson, Richard R., to Hercules Incorporated. Apparatus and method for working fine wire. 3,532,852, 10-6-70, Cl. 219-103.

Larson, Richard R., to United States of America, Air Force. Method and apparatus for preventing premature ignition of electro-explosive devices. 3,541,961, 11-24-70, Cl. 102-28.

Larson, Robert A.: *See*—
Gauthier, Edward; Larson, Robert A.; and LaTendresse, Philip E.,3,550,653.

Larson, Robert H. Collector and method of making the same. 3,507,301, 4-21-70, Cl. 137-602.

Larson, Robert L., to Parker Metal Goods Company. Apparatus for molding a thermoplastic film blister for merchandise packaging. 3,496,607, 2-24-70, Cl. 18-19.

Larson, Robert L.; and Stenklyft, Gerald H., to General Motors Corporation. Transistor voltage regulating system for generators having main and reverse field windings. 3,512,076, 5-12-70, Cl. 322-28.

Larson, Robert S. Keystone Consolidated Industries, Inc. Hinge and counter-balancing support. 3,496,595, 2-24-70, Cl. 16-180.

Larson, Robert S., to Keystone Consolidated Industries, Inc. Self-closing hinge. 3,518,716, 7-7-70, Cl. 16-189.

Larson, Robert William: *See*—
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Larson, Robert W.; and Larson, Jerome M., to Larson International Corporation. Extendable and tiltable load bed structure. 3,550,801, 12-29-70, Cl. 214-505.

Larson, Robert W.; and Lundberg, John P., to Beloit Corporation. High-speed tree harvesting apparatus. 3,487,864, 1-6-70, Cl. 144-3.

Larson, Robert W.; Lundberg, John P.; and Hunger, Richard H., to Beloit Corporation. Reciprocal blade slasher. 3,491,811, 1-27-70, Cl. 144-34.

Larson, Roger R., to Lincoln Laboratories, Inc. Disposable injector and holder therefor. 3,535,068, 10-20-70, Cl. 128-218.

Larson, Ronald W.: *See*—
Bolaski, Michael P., Jr., 3,497,233.

Larson, Sherman L.; and Beer, Carl C., to Sherman Car Wash Equipment Company. Vehicle washer. 3,506,995, 4-21-70, Cl. 15-21.

Larson, Theodore L.; and Pouli, Dirk, to Allis-Chalmers Manufacturing Company. Method of making and fuel cell anode catalyst comprising nickel, molybdenum, boron and phosphorous. 3,514,340, 5-26-70, Cl. 136-120.

Larson, Thomas M., to Harnischfeger Corporation. Multiple fluid coupling connection mechanism. 3,527,480, 9-8-70, Cl. 285-85.

Larson, Thomas M., to Harnischfeger Corporation. Truck crane with clutch and torque converter controls. 3,541,596, 11-17-70, Cl. 212-69.

Larson, Vincent H., to Northwestern University. Transportation system. 3,508,496, 4-28-70, Cl. 104-130.

Larson, Walter G. Tip-proof coaster. 3,491,976, 1-27-70, Cl. 248-346.1

Larson, Warren L.: *See*—
Fairbanks, Daniel F.; Larson, Warren L.; Randall, Robert N.; and Wong, James,3,548,351.

Larson, Wesley S.: *See*—
Richardson, Henry M.; Alberghini, Alfred C.; Wiley, Fred E.; and Larson, Wesley S.,3,530,901.

Larson, Wesley S., to Plastic Ammunition Products, Inc. Plastic article making. 3,492,387, 1-27-70, Cl. 264-97.

Larson, William C., to Holley Carburetor Company. In-line valving assembly. 3,545,486, 12-8-70, Cl. 137-554.

Larsson, Bengt David Ragnar: *See*—
Kompert, Paul; and Larsson, Bengt David Ragnar,3,506,187.

Larsson, Bjorn E.: *See*—
Le Sota, Stanley; and Larsson, Bjorn E.,3,503,918.

Larsson, Karl O.: *See*—
Jordansson, Lars; Larsson, Karl O.; and Wahlstrom, Per Borje,3,531,371.

Larsson, Karl-Olof Sellden: *See*—
Gregersen, Alv; and Larsson, Karl-Olof Sellden,3,501,823.

Larsson, Valter; and Thorsteinsen, Thor Erik, to Allmanna Svenska Elektriska Aktiebolaget. Means for battery of condensers. 3,532,933, 10-6-70, Cl. 317-12.

LaRue, Mervin W., Jr., to Ampex Corporation. Camera lens turret. 3,487,761, 1-6-70, Cl. 95-44.

Larue, Napoleon Lucien: *See*—
Holmes, Arthur; Larue, Napoleon Lucien; and Grenier, Joseph Mederic,3,489,831.

La Rue, Phillip G., to Calcinator Corporation. Electric smokeless and odorless incinerator. 3,496,890, 2-24-70, Cl. 110-8.

LaRue, Phillip G., to Calcinator Corporation. Smokeless and odorless domestic incinerators. 3,527,177, 9-8-70, Cl. 110-8.

LaRussa, Francis J.: *See*—
Mailloux, Robert J.; Caron, Paul R.; and LaRussa, Francis J.,3,501,764.

LaRussa, Joseph A., to Farrand Optical Co., Inc. Implantable body actuated artificial heart system. 3,518,702, 7-7-70, Cl. 3-1.

Lary, Edmund C.: *See*—
Meyerand, Russell G., Jr.; and Lary, Edmund C.,3,489,933.

Larys, Bohumir A.: *See*—
Hubbard, Albert B.; Larson, John C.; Larys, Bohumir A.; and Smith, Lewis F.,3,545,890.

LaSalle Machine Tool, Inc.: *See*—
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LaSalle, Michel Marie Joseph; and Jourdan, Gerard Charles Maurice, to Societe Anonyme: Societe Alsacienne de Constructions Atomiques de Telecommunications et d'Electronique 'Alcatel'. Controlled uniform illumination and sensing of objects having differential light reflectivity. 3,500,054, 3-10-70, Cl. 250-227.

Lasar, William. Meat flaker. 3,530,914, 9-29-70, Cl. 146-92.

Lasarev, Nikolai; and Lemoine, Maurice G., to Ampex Corporation. Tape tension means. 3,497,154, 2-24-70, Cl. 242-75.44

Lascari, Joseph, to American Permac Inc. Nonscald steam garment press. 3,530,602, 9-29-70, Cl. 38-16.

Laselva, Armand G.; and Orfei, John Baptist, to American Science and Engineering, Inc. Sounding box. 3,494,240, 2-10-70, Cl. 84-291.

Laser Systems Corporation: *See*—
Hill, Alan Eugene, 3,491,309.

Lash Manufacturing, Inc.: *See*—
Hutkin, Irving J., 3,512,946.

Lasher, Gordon J.: *See*—
Fowler, Alan B.; and Lasher, Gordon J.,3,509,384.

Lashley, Harry: *See*—
Higgs, Arthur; Lashley, Harry; and Thompson, George Roland,3,539,169.

Lasier, David W., to Schlage Lock Company. Dead stop. 3,492,686, 2-3-70, Cl. 16-49.

Lasis, Evalds, to Polymer Corporation Limited. Stereospecific polymerization of conjugated diolefins in the presence of halogen substituted diolefins. 3,547,864, 12-15-70, Cl. 260-94.3

Laska, Bernard. Irrigation well casing connector. 3,536,138, 10-27-70, Cl. 166-315.

Laske, Louis Lawrence: *See*—
Von Stoesser, Walter; and Laske, Louis Lawrence,3,501,896.

Laskey, Norman V.: *See*—
Campbell, George T. R.; and Laskey, Norman V.,3,527,545.
Campbell, George T. R.; and Laskey, Norman V.,3,534,839.

Laskey, Norman V., to Waukesha Bearings Corporation. Ship's propeller securing and jacking means. 3,549,275, 12-22-70, Cl. 416-245.

Laskin, Eugene B.: *See*—
Ellerin, Charles; and Laskin, Eugene B.,3,527,131.

Lasko, William R.; and Nichols, Monte C. Multiphase non-metallic compositions of matter. 3,505,218, 4-7-70, Cl. 252-1.

Lasky, Peter A., to General Electric Company. Foil coils for a cathode ray tube yoke. 3,489,972, 1-13-70, Cl. 335-213.

Lasky, Peter Alexander: *See*—
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Gignier, Jean P.; Lhonore, Pierre; Quibel, Jacques; and Senes, Michel, 3,533,766.
Senes, Michel; Lhonore, Pierre; Gignier, Jean P.; Guibel, Jacques; and Housset, Jean, 3,533,963.

Lasoff, Murry; Holmes, Irwin R.; and Dodds, Thomas J., Jr., to Burroughs Corporation. Display system. 3,505,665, 4-7-70, Cl. 340-324.

La Soudure Autogene Francaise: *See*—
Lerner, Paul; and Poterlot, Georges, 3,487,793.

La Soudure Electrique Autogene: *See*—
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La Soudure Electrique Autogene, Procedes Arcos: *See*—
Colinet, Rene D., 3,492,050.
De Haeck, Robert Jean, 3,511,960.
Lalieu, Andre Jean Michel, 3,490,942.
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La Spirotechnique: *See*—
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Lassen, Niels: *See*—
Petersen, Povl Viggo; Lassen, Niels; and Ammitzboll, Thorkil,3,549,656.
Petersen, Povl Viggo; Lassen, Niels; and Hjortkjer, Jes,3,523,124.

Lasser, Howard G.; and Levine, Sidney. Phototropic finished anodized aluminum dosimeter. 3,509,029, 4-28-70, Cl. 204-38.

Lasseur, Claude, to Commissariat a l'Energie Atomique. Apparatus for continuous and simultaneous measurement of concentration in the atmosphere of the short-lived solid decay products of radon. 3,502,876, 3-24-70, Cl. 250-83.6

Lasseur, Claude; Tonnelier, Claude; and Zerbib, Jean Claude, to Commissariat a l'Energie Atomique. Device for sampling aerosols. 3,528,279, 9-15-70, Cl. 73-28.

Lasseur, Walter: *See*—
Pfaff, Herbert; Lasseur, Walter; and Hillebrand, Friedheim,3,500,773.

Lassig, Wolfgang; Ulrich, Hans; Muller, Erwin; and Dinges, Karl, to Gevaert-Agfa N.V. Light-sensitive materials containing a photocrosslinkable composition. 3,533,796, 10-13-70, Cl. 96-91.

Lassig, Wolfgang: *See*—
Vrancken, Marcel Nicolas; and Lassig, Wolfgang,3,511,652.

Lassiter, Rush E. Steam heating device. 3,502,065, 3-24-70, Cl. 126-20.

Lassy, Carl O. Workpiece hold-down jaws. 3,514,092, 5-26-70, Cl. 269-134.

Last, Anthony Edward Walter, to British Steel Piling Company Limited, The. Percussive tools utilizing a reciprocating differential area piston. 3,529,511, 9-22-70, Cl. 91-299.

Last, Anthony J.; and Kisly, Michael, to Ontario Research Foundation. Device for the concentration of vibrational energy. 3,524,083, 8-11-70, Cl. 310-8.1

Last, Anthony J.: *See*—
Smith, Duncan K.; and Last, Anthony J.,3,531,406.

Last, Arthur W.; and Fraser, George L., to Kennecott Copper Corporation. Process for separating molybdenite from copper sulfide concentrates. 3,539,002, 11-10-70, Cl. 209-3.

Laster, David L.: *See*—
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Gardner, Newell J.; and Lastinger, William R.,3,535,899.
Gardner, Newell J.; and Lastinger, William R.,3,536,349.

Lastinger, William R.; and Gardner, Newell J. Telescopic radar antenna. 3,495,261, 2-10-70, Cl. 343-709.

Lastinger, William R.; and Gardner, Newell J. Quick disconnect battery apparatus. 3,536,876, 10-27-70, Cl. 200-161.

Lastochkin, Jury Vasilievich: *See*—
Bogdanov, Leonid Alexandrovich; Dorman, Efim Isaakovich; Katsnelson, Bentsion Davydovich; Kavokin, Mikhail Porfirievich; Lastochkin, Jury Vasilievich; Mikhail Fedor Konstantinovich; Person, Leonid Matveevich; Saksonov, Gennady Markovich; Slepnev, Viktor Arsenievich; Bogdanov, Boris Romanovich; and Khvastunov, Vladimir Nikolaevich,3,519,397.

Laszlo, Joseph, to International Patents & Development Corporation, mesne. Line one gear reducer. 3,550,462, 12-29-70, Cl. 74-118.

Laszlo, Nicolas, to Ets. Carpano & Pons. Spring wound fishing reel. 3,506,214, 4-14-70, Cl. 242-84.3

Latady, William R.: *See*—
Mahoney, Jeremiah F.; Hanes, Robert B.; and Latady, William R.,3,508,539.

La Telemecanique Electrique: *See*—
Becker, Raymond; and Lacan, Guy H., 3,510,848.
Charrin, Jean Pierre; Hermier, Jacques; and Lalande, Michel George E., 3,500,170.
Duchemin, Pierre; and Etienne, Jean-Claude, 3,540,013.
Faffart, Andre Georges, 3,519,968.
Joly, Jean Louis Andre, 3,541,224.
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Lanux, Claude Pascal, 3,518,599.
Nerot, Patrick J. M.; and Vinot, Claude P., 3,538,601.
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Cottrez, Gerard, 3,500,321.

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Latham, Archie J.: *See*—
Phillips, Lee V.; and Latham, Archie J.,3,501,491.

Latham, Raymond E.; Dane, Oscar, III; and Ratliff, Charles D., to Gray Tool Company. Well tubing behavior measurement apparatus and method. 3,492,866, 2-3-70, Cl. 73-151.

Latham, Raymond E.; and Holbert, Marvin L., Jr., to Gray Tool Company. Check valve. 3,509,908, 5-5-70, Cl. 137-527.

Latham, Roland James. Method of making stainless steel and like tubes and fittings with branches. 3,535,909, 10-27-70, Cl. 72-367.

Lathem, James M.: *See*—
Matthews, Robert M.; and Lathem, James M.,3,499,196.

Lathrop, Francis M., II, to M & J Valve Company. Flow-T construction. 3,511,272, 5-12-70, Cl. 137-544.

Lathrop, Francis M., II, to M & J Valve Company. Meter proving system with leak detection. 3,530,705, 9-29-70, Cl. 73-3.

Lathrop, Francis M.; and Reaves, Vernon R., to M & J Valve Company. Leak detecting apparatus for valves. 3,511,082, 5-12-70, Cl. 73-46.

Lathrope, Gerald A.; Thompson, Reuel E.; and Ives, Wayne S., to Olin Mathieson Chemical Corporation. Shot container. 3,516,360, 6-23-70, Cl. 102-95.

Latinvestment Ltd.: *See*—
Zalles, Robert I., 3,505,175.

La Torra, Michael: *See*—
Petriello, John V.; and La Torra, Michael,3,502,498.

Latos, Edwin J., to Universal Oil Products Company. Rubber stabilized with mixtures of a phenylene diamine and a different amine compound. 3,502,612, 3-24-70, Cl. 260-45.8

Latos, Edwin J.: *See*—
Sparks, Allen; and Latos, Edwin J.,3,530,076.

Latour, Andre, to Magrini-Fabbriche Riunite Magrini-Scarpa e Magnano M.S.M. S.p.A. Arc-quenching electrode assembly for high-power circuit breakers and switches. 3,518,387, 6-30-70, Cl. 200-144.

LaTour, Harry; and Miller, George D., to Armco Steel Corporation. Compact strip accumulator. 3,506,210, 4-14-70, Cl. 242-55.

Latourette, Harold K.: *See*—
Allen, James Forrest; and Latourette, Harold K.,3,509,218.

La Trique Brassiere Company, Inc.: *See*—
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Latrobe Steel Company: *See*—
Fletcher, Stewart G.; and Haswell, Walter T., Jr., 3,489,551.

Latta, Edward: *See*—
Stone, Thomas W.; and Latta, Edward,3,510,707.

Latta, Richard S. Continuous resistance type exercising device. 3,544,105, 12-1-70, Cl. 272-83.

Latter, Charles F.: *See*—
Holman, Merle R.; and Latter, Charles F.,3,532,938.

Latterman, Earl M.; and Lacey, Richard E., to Tygart Industries, Inc. Tractor counterweight assembly. 3,490,787, 1-20-70, Cl. 280-150.

Lattimore, Samuel; and Morris, Richard A., to New Zealand Government Property Corporation. Automatic control of machining operations. 3,544,968, 12-1-70, Cl. 340-172.5

Lattke, Horst G.; and Hahn, Arthur H., deceased (by Emhart Corporation; assignee), to Emhart Corporation. Packing machine wherein flat blanks are folded around article groups fed continuously therethrough. 3,513,630, 5-26-70, Cl. 53-209.

Lattuca, Sam. Plastic basket. 3,513,895, 5-26-70, Cl. 150-48.

La Tulip, Arthur C.; Mathers, James E.; and Warner, John G., to Sylvania Electric Products, Inc. Method for purifying phosphors. 3,492,241, 1-27-70, Cl. 252-301.4

Latvala, Aale M.; Seiden, Myron A.; and Howes, Benjamin T., to Ford Motor Company. Fuel tank vapor separator system. 3,542,239, 11-24-70, Cl. 220-85.

Latyshev, Konstantin Vasilievich: *See—*
Dudin, Vitaly Vasilevich; and Latyshev, Konstantin Vasilievich,3,531,166.

Latzer, Beda, to Sulzer Brothers Limited. Shielded apparatus for effecting irradiation of materials. 3,493,756, 2-3-70, Cl. 250-106.

Lau, Erwin M., to Black Products Co. Bag filling machine having improved scale mechanism. 3,540,539, 11-17-70, Cl. 177-256.

Lau Incorporated: *See—*
Martin, Warner W., 3,511,265.

Lau, Philip T. S.: *See—*
Gompf, Thomas E.; and Lau, Philip T. S.,3,493,372.

Laub, Gustave E. Protective shell for peg rack. 3,510,897, 5-12-70, Cl. 12-123.

Laub, Henry William: *See—*
Messner, Georg; Barbato, Alexander Louis; Laub, Henry William; and Loftfield, Richard Eric,3,499,829.

Laub, Herman, III. Leak-detector. 3,527,084, 9-8-70, Cl. 73-45.2

Laub, Herman. Leak detector. 3,495,441, 2-17-70, Cl. 73-45.2

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Schuller, Walter H.; Minor, Jacob C.; Lawrence, Ray V.; and Kanno, Hideo,3,518,282.

Lawrence, Richard E. Sectionalized expansible smokestack. 3,487,795, 1-6-70, Cl. 110-184.

Lawrence, Robert J., to Westinghouse Electric Corporation. Voltage-indicating device for a switch bushing stud. 3,544,985, 12-1-70, Cl. 340-248.

Lawrence, Uulius L. Agitator. 3,544,080, 12-1-70, Cl. 259-45.

Lawrence, Willis Thompson, to Hooker Chemical Corporation. Apparatus for the protection of structures exposed to heat storage compositions. 3,492,461, 1-27-70, Cl. 219-325.

Lawrence, Willis Thompson: *See—*
Rice, Richard E.; and Lawrence, Willis Thompson,3,501,261.

Lawrenson, Jack, to Pilkington Brothers Limited. Molten bath with roller for drawing a glass sheet thereover. 3,493,359, 2-3-70, Cl. 65-182.

Lawrenson, Jack: *See—*
Robinson, Albert Sidney; Silverwood, Frederick William; and Lawrenson, Jack,3,492,109.

Lawrenson, William Arthur, to Econa Parkamatic Limited. Waste disposal apparatus. 3,534,913, 10-20-70, Cl. 241-36.

Lawrie, George S.; and Rose, Gary W., to Garrett Corporation, The. Acceleration sensor switch. 3,509,299, 4-28-70, Cl. 200-61.53

Lawrie, William N., Jr.; and Ziskind, Ilan, to Burroughs Corporation. Semiconductor pulse amplifier. 3,548,219, 12-15-70, Cl. 307-263.

Laws, Derek Roy James: *See—*
Ashurst, Phillip Roy; and Laws, Derek Roy James,3,536,762.

Laws, Ira G., to Seismograph Service Corporation. Vote recorder. 3,536,257, 10-27-70, Cl. 235-50.

Laws, Ira G., to Seismograph Service Corporation. Combination storage container and voting enclosure for vote recorders. 3,544,184, 12-1-70, Cl. 312-259.

Laws, Ira G., to Seismograph Service Corporation. Pin insertion fixture. 3,548,477, 12-22-70, Cl. 29-200.

Laws, Ira G., to Seismograph Service Corporation. Apparatus for placing flexible sheets in protective envelopes. 3,548,523, 12-22-70, Cl. 40-11.

Lawson, Andrew L.: *See—*
Lawson, Royal H.; and Lawson, Andrew L.,3,504,764.

Lawson, Archibald. Apparatus for separating mixed liquids. 3,503,514, 3-31-70, Cl. 210-301.

Lawson, Arnold D., to Sperry Rand Corporation. DC to AC converter control circuit producing variable pulse width and reversible phase AC. 3,538,458, 11-3-70, Cl. 332-9.

Lawson, Dale W. R., to Rohr Corporation. Multi-layer face material for sound absorptive duct lining material. 3,507,355, 4-21-70, Cl. 181-48.

Lawson, Dale W. R.: *See—*
Hom, Felix; and Lawson, Dale W. R.,3,532,275.

Lawson, David A.; Peterson, Ralph W.; and Stockert, Alfred A., to Bell Telephone Laboratories, Incorporated. Process control system including hardware element status map in memory. 3,495,220, 2-10-70, Cl. 340-172.5

Lawson, Ethel Nelson: *See—*
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Lawson, Gordon Robert, to AMP Incorporated. Preform cold-crimp sleeve applicator. 3,537,167, 11-3-70, Cl. 29-203.

Lawson, Gustaf R., to Circle F Industries, Inc. Continuously variable, full-wave, phase-controlled power circuit. 3,543,141, 11-24-70, Cl. 323-24.

Lawson, Harry Wibur, Jr. Electronic ignition system. 3,516,396, 6-23-70, Cl. 123-148.

Lawson, Ivar S., deceased (by Lawson, Ethel Nelson; executrix), to AVM Corporation. Mirror supporting device. 3,516,637, 6-23-70, Cl. 248-477.

Lawson, James Scott. Display system. 3,537,199, 11-3-70, Cl. 40-125.

Lawson, Jimmie B.: *See—*
Abrams, Albert; and Lawson, Jimmie B.,3,500,921.
Reisberg, Joseph; Lawson, Jimmie B.; and Smith, George,3,508,612.

Lawson, John B. Yarn severing and clamping mechanism for knitting machines. 3,520,154, 7-14-70, Cl. 66-140.

Lawson, John R.: *See—*
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Anderton, Catherine Margaret; Fishwick, Brian Ribbons; and Lawson, John,3,544,550.

Lawson, Kenneth Thomas; and Nofer, Jerzy Franciszek, to Head, Wrightson and Company, Limited. Strip flattening. 3,527,078, 9-8-70, Cl. 72-160.

Lawson, Richard E.; and Willhite, Charles C., to Bell Telephone Laboratories, Incorporated. System for replacing all or part of a faulty amplifier. 3,519,945, 7-7-70, Cl. 330-2.

Lawson, Royal H.; and Lawson, Andrew L. Intruder resistant fire escape. 3,504,764, 4-7-70, Cl. 182-48.

Lawson, Thomas G., to Girling Limited. Vehicle brake pressure control means. 3,506,313, 4-14-70, Cl. 303-22.

Lawson, William J. Method and apparatus for peeling fruits or vegetables. 3,502,128, 3-24-70, Cl. 146-231.

Lawson, William J. Giblet inserter. 3,540,074, 11-17-70, Cl. 17-11.

Lawter Chemicals, Inc.: *See—*
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Lawter, Fred M. Live bait retainer for fishhooks. 3,494,066, 2-10-70, Cl. 43-44.8

Lawthers, Dean D.; and Pepino, George T., Jr., to Sylvania Electric Products, Inc. Metallic composites. 3,547,681, 12-15-70, Cl. 117-71.

Lawton, Elliott J.; and Balwit, John S., to General Electric Company. Modified crosslinked polyoxymethylenes and their preparation. 3,533,930, 10-13-70, Cl. 204-159.15

Lawton, Emil A.; and Pilipovich, Donald, to North American Rockwell Corporation. Process for the preparation of trifluoramine oxide. 3,505,015, 4-7-70, Cl. 23-203.

Lawton, Emil A.; and Weber, John Q., to North American Rockwell Corporation. Preparation of chlorodifluoramine. 3,488,163, 1-6-70, Cl. 23-356.

Lawton, Geoffrey Roy: *See—*
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Lawton, John B.: *See—*
Schofield, Arthur; and Lawton, John B.,3,542,504.

Lawton, John E., to British Insulated Callender's Cables Limited, and Central Electricity Generating Board. Cryogenic devices. 3,512,581, 5-19-70, Cl. 165-81.

Lawton, John G.: *See—*
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Lawver, Bill R.: *See—*
Breen, Bernard P.; Lawver, Bill R.; and Kliege, James R.,3,521,453.

Lay, Clark M., to United States of America, Atomic Energy Commission. Phase detector. 3,517,322, 6-23-70, Cl. 328-133.

Lay, Clark M., to United States of America, Atomic Energy Commission. System for computing and continuously displaying increments of movement of an object in useable units of measure. 3,549,870, 12-22-70, Cl. 235-92.

Lay, Ralph B., to Hamilton Cosco, Inc. Foldable serving cart. 3,527,174, 9-8-70, Cl. 108-115.

Lay, Ralph B., to Hamilton Cosco, Inc. Serving cart. 3,541,975, 11-24-70, Cl. 108-27.

Laybourn, Robert J., to International Business Machines Corporation. Mechanical drive. 3,528,309, 9-15-70, Cl. 74-404.

Laycock Engineering Limited: *See—*
Lightowler, Leslie Ernest, 3,493,083.
Lightowler, Leslie Ernest; and Pagdin, Brian Colin, 3,529,471.

Layden, Lawrence M., to Air Reduction Company, Incorporated. Variable lead device for indicium tracers. 3,496,437, 2-17-70, Cl. 318-18.

Layhe, Michael, to General Descaling Company Limited. Unidirectional meter provers. 3,504,523, 4-7-70, Cl. 73-3.

Layher, Francis W. Circuit operating device for swimming pool alarm system. 3,504,145, 3-31-70, Cl. 200-84.

Layman, John D., to General Electric Company. Temperature compensated control systems. 3,499,354, 3-10-70, Cl. 83-72.

Layman, Melvin M.: *See—*
Jensen, Hans A.; and Layman, Melvin M.,3,490,323.

Layman, Robert W. Depth indicating stake. 3,511,210, 5-12-70, Cl. 116-114.

Layne & Bowler, Inc.: *See—*
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Layne, Gilbert S.: *See—*
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Layne, Gilbert S.; and Huml, James O., to Dow Chemical Company, The. Process for preparing refractory metal oxide casts. 3,490,929, 1-20-70, Cl. 106-55.

Layne, Gilbert S.; Huml, James O.; and Boeckler, Walter H., to Dow Chemical Company, The. Purification of ferro-silicon alloys. 3,511,647, 5-12-70, Cl. 75-129.

Layne, Gilbert S.; Huml, James O.; and Smith, Richard Dale, to Dow Chemical Company, The. Process for the electrolysis of aluminum chloride. 3,518,172, 6-30-70, Cl. 204-67.

Layne, Gilbert S.; Huml, James O.; and Smith, Richard D., to Dow Chemical Company, The. Process for the separation of Al and Si. 3,503,737, 3-31-70, Cl. 75-63.

Layne, Harold W., Sr., to Inland Container Corporation. Adjustable depth carton. 3,521,748, 7-28-70, Cl. 206-83.5

Layne, Harold W., Sr., to Inland Container Corporation. Book shipping container with releasable closure. 3,527,399, 9-8-70, Cl. 229-39.

Layne, Max E.; and Munhausen, Theodore W., to Layne & Bowler, Inc. Welded well strainer. 3,489,185, 1-13-70, Cl. 140-92.2

Layne, Ronald E., to Reynolds Metals Company. Heat-shrinkable plastic laminates with a wax moisture-vapor barrier layer and methods of making the same. 3,547,768, 12-15-70, Cl. 161-234.

Laynor, William G., Jr.; and Monitor, Dean S., to Martin-Marietta Corporation. Side stick. 3,523,665, 8-11-70, Cl. 244-83.

Layte, Howard L.: *See—*
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Layton, Grover C., deceased (by Layton, Stella; administratrix), to First National Bank of Dunedin, Fla., Trustee. Food preserving process. 3,518,096, 6-30-70, Cl. 99-154.

Layton, Howard M., to Interlab, Inc. Laminar flow rinsing and drying vessels. 3,543,776, 12-1-70, Cl. 134-110.

Layton, Jack D. Mechanism for coupling a vehicle to a unit leading the vehicle. 3,515,411, 6-2-70, Cl. 280-460.

Layton, Margaret M.: *See—*
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Lazar, Janos J.: *See—*
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Lazar, Janos J.; and Bailey, Russel O., to Texas Instruments, Incorporated. Socket with pivotal contacts. 3,503,035, 3-24-70, Cl. 339-177.

Lazar, Jeffrey M., to Honeywell Inc. Transducers. 3,504,689, 4-7-70, Cl. 137-81.5

Lazar, Jeffrey M., to Honeywell Inc. Control apparatus. 3,548,794, 12-22-70, Cl. 123-119.

Lazar, Melvin E.: *See—*
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Farkas, Daniel F.; and Lazar, Melvin E.,3,500,552.

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Lazaridis, Lazaros J., to Thermo Electron Corporation. Radiant-tube furnace. 3,515,380, 6-2-70, Cl. 263-42.

Lazaros, Anthony M. Fuel combustion system. 3,511,218, 5-12-70, Cl. 123-119.

Lazarus, Herbert C.: *See—*
Maxwell, Stewart P.; and Lazarus, Herbert C.,3,525,221.

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Lazzari, Ettore: *See—*
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Lazzarini, Donald J.; Sabad, Joseph J.; and Wiley, Robert T., to International Business Machines Corporation. Temperature stable ink transfer coating compositions. 3,515,590, 6-2-70, Cl. 117-235.

Lazzaro, Dominic R.: *See—*
Butler, Clarence A.; and Lazzaro, Dominic R.,3,510,005.

Lazzarotto, Hector: *See—*
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Lazzeroni, Edward J., to Case, J. I., Company. Counter-weight attachment for a tractor. 3,517,941, 6-30-70, Cl. 280-150.

LB Safety Devices, Inc.: *See—*
Burt, Leo E., 3,526,873.

Lea, Hans: *See—*
Ahrens, Wilhelm; Lea, Hans; Rohm, Fritz; and Strahle, Heinz,3,534,943.

Lea, Lawrence N. Security alarm system. 3,495,040, 2-10-70, Cl. 179-2.

Lea, Lawrence N. Supply parts for making various plug and jack burglar alarm switch constructions. 3,495,054, 2-10-70, Cl. 200-61.093

Lea, Lawrence N. Magnetic shunt switches and the like. 3,516,036, 6-2-70, Cl. 335-207.

Lea, Lawrence N. Electrical closure operated switch changeable between normally open and normally closed condition. 3,541,276, 11-17-70, Cl. 200-61.62

Lea, Wendell H. Steam engines. 3,490,234, 1-20-70, Cl. 60-95.

Leach Corporation: *See—*
Bower, Richard R., 3,495,316.
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Leach, Donald J.; Moore, William N.; and Snyder, Billy J., to Armco Steel Corporation. Blast furnace skip car. 3,508,671, 4-28-70, Cl. 214-19.

Leach, Ian Campbell; and Sack, Kevin Howard, to Fielden Electronics (Australia) Proprietary Limited. Dewpoint detection apparatus. 3,516,282, 6-23-70, Cl. 73-17.

Leach, Jack: *See—*
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Leach, John M. Article handling conveyors. 3,537,568, 11-3-70, Cl. 198-127.

Leach, John M. Article handling conveyors. 3,537,569, 11-3-70, Cl. 198-127.

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Leach, Paul B.: *See—*
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Leach, Pembroke O.; Jackson, William P.; and Camp, Vernon W., to Combustion Engineering, Inc. Method for welding longitudinal lobes or fins to tubes. 3,546,426, 12-8-70, Cl. 219-137.

Leach, Robert E.: *See—*
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Leach, Sam L., to Griblin, F. C. Lighting means excited by ultraviolet radiation. 3,525,864, 8-25-70, Cl. 250-71.

Leach, Thurman H. Apparatus for dispensing feed. 3,497,109, 2-24-70, Cl. 222-144.5

Leader, Victor. Riding mower grass catcher. 3,527,037, 9-8-70, Cl. 56-202.

Leaders, Otto W. Traveling water supply for field irrigation system. 3,519,206, 7-7-70, Cl. 239-213.

Leahy, David D.: *See—*
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Leahy, Henry C., to Westinghouse Electric Corporation. Conductance divider. 3,544,945, 12-1-70, Cl. 338-89.

Leak, Paul W., to Industriewerk Schaeffler O.H.G. Method for making bearing with seal. 3,510,927, 5-12-70, Cl. 29-148.4

Leak, Paul W., to Industriewerk Schaeffler O.H.G., mesne. Bearing with seal. 3,549,221, 12-22-70, Cl. 308-187.2

Leakey, David Martin; and Speed, Richard Francis Bentinck, to General Electric Company Limited, The. Switching system using additional selectors in some paths. 3,489,858, 1-13-70, Cl. 179-18.

Leal, Peter R.; and Lin, Andrew D., to International Business Machines Corporation. Shifting apparatus. 3,495,075, 2-10-70, Cl. 235-175.

Leaman, Joel R., to RCA Corporation. Photoconductive pickup tube having opaque gold pattern encapsulated in tin oxide layer. 3,519,866, 7-7-70, Cl. 313-65.

Leaman, Wilbur K.; Plank, Charles J.; and Rosinski, Edward J., to Mobil Oil Corporation. Steam reforming of hydrocarbons. 3,523,772, 8-11-70, Cl. 48-214.

Leaman, Wilbur K.; Plank, Charles J.; and Wojciechowski, Bohdan W., to Mobil Oil Corporation. Catalytic cracking of hydrocarbons. 3,530,065, 9-22-70, Cl. 208-120.

Leamon, Tom B.: *See—*
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Lear, Joseph D.; and Holt, Eric M., to Posting Equipment Corporation. Index devices. 3,547,304, 12-15-70, Cl. 220-22.2

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Lear, William P., to Lear Jet Industries, Inc. Selective-stereo monaural tape player. 3,507,501, 4-21-70, Cl. 274-4.

Lear, William P., to Lear Jet Industries Incorporated. Magnetic tape drive system. 3,520,460, 7-14-70, Cl. 226-188.

Lear, William P.; and Auld, Samuel H., to Lear Jet Industries, Inc. Magnetic tape cartridge player with radio having a common amplifier and switchless independent operation therethrough. 3,505,486, 4-7-70, Cl. 179-100.11

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Leary, Robert E.; and Schenck, Leslie M., to GAF Corporation. Organic polyoxyalkylene ether aluminates. 3,488,370, 1-6-70, Cl. 260-448.

Leary, Robert E.; and Schenck, Leslie M., to GAF Corporation. Phosphonamide sulfonates. 3,522,333, 7-28-70, Cl. 260-947.

Leary, Robert E.: *See—*
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Leary, Thomas P. Variable time interval cable release for motion picture cameras. 3,506,881, 4-14-70, Cl. 317-130.

Leas, Arnold M. Producing isoparaffins and naphthenes from hydrocarbons. 3,513,085, 5-19-70, Cl. 208-60.

Leas, Arnold M., to Ashland Oil & Refining Company. Process for clarifying and stabilizing hydrocarbon liquids. 3,529,944, 9-22-70, Cl. 44-70.

Leas, Arnold M., to Ashland Oil & Refining Company. Process for drying, clarifying and stabilizing hydrocarbon liquids. 3,533,763, 10-13-70, Cl. 44-70.

Leas, Arnold M., to Ashland Oil & Refining Company. Jet fuel from blended conversion products. 3,533,938, 10-13-70, Cl. 208-80.

Lease, Charles A.: *See—*
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Leash, Kenneth H.: *See—*
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Leash, Neil A.; and Leash, Kenneth H. Attaching means with releasable securing tab for expendable sinker. 3,513,583, 5-26-70, Cl. 43-43.12

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Wetz, William Ben; Lefevre, Lloyd Edward; Leasher, Arthur Lee; and Briggs, Roger Lee,3,504,402.

Leasure, William C., to Mira-Pak, Inc. Method and apparatus for forming tetrahedro-shaped packages. 3,529,397, 9-22-70, Cl. 53-28.

Leasure, William C., to Mira-Pak, Inc. Method and apparatus for packaging with a movable mandrel. 3,543,467, 12-1-70, Cl. 53-28.

Leasure, William C., to Mira-Pak Inc. Method and apparatus for packaging with stationary inner mandrel for forming flat bottom package. 3,543,468, 12-1-70, Cl. 53-28.

Leasure, William C., to Mira-Pak, Inc. Apparatus for packaging with hinged plate for forming flat bottom package. 3,543,477, 12-1-70, Cl. 53-180.

Leasure, William C., to Mira-Pak. Method and apparatus for packaging with a movable mandrel and platen top sealing jaws. 3,548,563, 12-22-70, Cl. 53-28.

Leat, Andrew Francis Vincent: *See—*
Alexander, Alfred John; Bishop, Geoffrey Stanley; Leat, Andrew Francis Vincent; and Tooze, Michael John,3,500,031.

Leathem, Douglas B., to United-Carr Incorporated, mesne. Switch-controlled dual function indicator. 3,518,485, 6-30-70, Cl. 315-129.

Leatherman, Alfred F., to Heller, William C., Jr., mesne. Apparatus for induction heating. 3,510,619, 5-5-70, Cl. 219-10.53

Leatherman, Alfred F. Magnetic through-field apparatus and process for printing by imbedding particles in a record medium. 3,526,708, 9-1-70, Cl. 178-6.6

Leatherman, Alfred F.; and Heller, William C., Jr., said Leatherman assor. to said Heller. Method for selective heat sealing or joining of materials. 3,528,867, 9-15-70, Cl. 156-272.

Leathers, Clarence H.; and Douglas, Virgil R., to Grant Oil Tool Company. Reverse circulation underreamer. 3,506,077, 4-14-70, Cl. 175-267.

Leatherwood, James M. Variable power sighting scope. 3,492,733, 2-3-70, Cl. 33-50.

Leavens, Willard H.; and Poujol, Albert C. Method of manufacturing screens. 3,543,371, 12-1-70, Cl. 29-160.

Leavitt, George A., to United States of America, Atomic Energy Commission. High intensity X-ray tube. 3,517,195, 6-23-70, Cl. 250-90.

Leavitt, George Robert: *See—*
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Leavitt, John L. Non-penetrating cleat arrangement. 3,512,275, 5-19-70, Cl. 36-59.

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Leavitt, Seymour: *See—*
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Leavitt, Seymour, to Madison Chemical Corporation. Aerosol insecticidal compositions. 3,524,911, 8-18-70, Cl. 424-45.

Leavitt, Seymour, to Madison Chemical Corporation. Lavatory sanitation bodies. 3,538,520, 11-10-70, Cl. 4-222.

Leavitt, Seymour; and Ancel, Selwyn J., to Madison Chemical Corporation. Lavatory sanitation bodies. 3,529,309, 9-22-70, Cl. 4-231.

LeBarre, James W. Adjustable boring bar. 3,492,709, 2-3-70, Cl. 29-96.

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Lebb, John R., Distributors Inc.: *See—*
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LeBeau, Katherine Marie. Fluid operated zipper. 3,517,423, 6-30-70, Cl. 24-207.

Lebedev, Vadim Mikhailovich; Nazarov, Boris Mikhailovich; Pochinsky, Viktor Mitrofanovich; and Smorchkov, Jury Konstantinovich. Device for measuring liquid density. 3,495,464, 2-17-70, Cl. 73-452.

Lebedev, Vladimir Konstantinovich: *See—*
Paton, Boris Evgenievich; Lebedev, Vladimir Konstantinovich; Sakharnov, Vasily Alexeevich; Galyan, Boris Afanasievich; Tishura, Vladimir Ivanovich; Mansurov, Stanislav Adgamovich; and Ignatov, Anatoly Dmitrievich,3,538,295.

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LeBlanc, Conrad L.; and Bloch, Jack, to Foster Grant Co., Inc. Flip-up lenses for spectacles. 3,531,188, 9-29-70, Cl. 351-48.

Le Blanc, George P., to United Aircraft Corporation. Blade lock. 3,508,844, 4-28-70, Cl. 416-221.

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Le Blanc, Joseph A., Jr., to Precision Scientific Company. Vacuum pump. 3,525,578, 8-25-70, Cl. 418-13.

Le Blanc, Leo J.; and Worthy, Ganes T., to Woodward Corporation. Process of making green sand cores. 3,496,988, 2-24-70, Cl. 164-23.

Leblanc, Leopold, 50% to Moisan, Jean. Locking device for pin and socket insulator connections. 3,513,254, 5-19-70, Cl. 174-150.

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Le Bleu, Robert D. Underwater vehicle. 3,508,509, 4-28-70, Cl. 114-16.

Le Bleu, Ronald E.; and Fassnacht, John H., to Du Pont de Nemours, E. I., and Company. Polyfluoropolyoxa-alkyl phosphates. 3,492,374, 1-27-70, Cl. 260-950.

Leblond, Jean, to Uniroyal Englebert France S.A. Tire fabric alignment mechanism. 3,537,936, 11-3-70, Cl. 156-405.

Leblond, Jean, to Uniroyal Englebert France S.A. Method and apparatus for transporting loads. 3,547,286, 12-15-70, Cl. 214-89.

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LeBolt, John M.; and Rupp, Richard O., to Cromwell Paper Company, The. Continuous web reinforcing machine. 3,493,455, 2-3-70, Cl. 156-440.

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Le Bouteiller, Gaetan, to Societe Grenobloise d'Etudes et d'Applications Hydrauliques (Sogreah). Floating breakwaters. 3,534,558, 10-20-70, Cl. 61-5.

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LeBras, Louis R., to PPG Industries, Inc. Electrodeposition method. 3,531,390, 929-70, Cl. 204-181.

Le Bras, Louis R.; Loop, Frederick M.; Hart, Donald P.; and Piasynski, Joseph E., to PPG Industries, Inc. Method of electrodepositing coating compositions with reduced soluble chromate ions. 3,491,011, 1-20-70, Cl. 204-181.

Lebrasseur, Genevieve, born Nicoud, to Ethylene-Plastique. Process for the production of ethylene episulfide. 3,532,713, 10-6-70, Cl. 260-327.

Lebre, Charles Jean Pierre. Devices for raising loads to permit the handling thereof. 3,529,736, 9-22-70, Cl. 214-390.

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Lecocq, Gerald W., 1/4 to Smith, Pleasant E. 1/4 to Ozbourn, James A., and 1/4 to Miller, Thomas A. Releasable electrical terminal. 3,491,329, 1-20-70, Cl. 339-75.

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Lecocq, Samuel G., to Pittman Products, Inc. Depth meter attachment for underwater pressure gauges. 3,528,290, 9-15-70, Cl. 73-291.

Lecomte, Daniel, to Societe Anonyme dite: CRAF'SAC. Method of manufacturing paper bags provided with an inner lining member of plastic material. 3,540,356, 11-17-70, Cl. 93-35.

Leconte, Guy, to CSF-Compagnie Generale de Telegraphie Sans Fil. Phase shift coding system. 3,509,559, 4-28-70, Cl. 340-347.

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LeCroy, James E., to United States Steel Corporation. Apparatus for removing excess coating material from strip edges. 3,536,038, 10-27-70, Cl. 118-104.

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Lederer, Michael, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process for polymerizing vinylaromatic compounds in suspension. 3,539,543, 11-10-70, Cl. 260-85.5

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Lederman, Albert; and Lydon, Francis A. Electrical measurement devices. 3,533,855, 10-13-70, Cl. 136-207.

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Ledezzma, William. Game having rotatably mounted resilient player representations. 3,495,827, 2-17-70, Cl. 273-85.

Ledger, Howard Roberts; and Clayton, Ronald, to English Electric Computers Limited. Document transfer devices. 3,545,746, 12-8-70, Cl. 271-83.

Ledger, Warren Albert, to Coates Brothers & Company Limited. Air drying polyester resins. 3,491,065, 1-20-70, Cl. 260-75.

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Ledoux, Pierre A. J., to Douglas, Hunter, International Ltd. Heated or cooled ceiling or wall structures. 3,516,486, 6-23-70, Cl. 165-54.

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Lee, Art, to General Electric Company. Solid state limit switch. 3,504,235, 3-31-70, Cl. 317-112.

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Lee, Charles A., to Appleton Wire Works Corporation, mesne. Sewn fabric filter medium and method of manufacture. 3,506,133, 4-14-70, Cl. 210-491.

Lee, Charles A., to Appleton Wire Works Corporation, mesne. Filter type animal cage cover. 3,528,390, 9-15-70, Cl. 119-15.

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Lee, Charles Allen, to Southeastern Products, Inc., mesne. Veneered product and a crossbanding material therefor. 3,522,138, 7-28-70, Cl. 161-92.

Lee, Charles Allen; Furbeck, Warren R.; Bartley, Thomas S.; and Beaty, Jeremy G., to Canadian International Paper Company, mesne. Method of forming a continuous fibrous web. 3,501,813, 3-24-70, Cl. 19-156.3

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Lee, Chien-Yung, to Columbian Carbon Company. Process for producing high purity cyclododecane. 3,513,208, 5-19-70, Cl. 260-666.

Lee, Chong W., to General Electric Company. Push-pull tunnel diode amplifier. 3,533,008, 10-6-70, Cl. 330-61.

Lee, Christopher C. Fishtrap. 3,508,358, 4-28-70, Cl. 43-60.

Lee, Chung-Pah Xavier: *See—*
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Lee, Daeyong; and Russell, Robert R., to General Electric Company. Process for producing apertured body comprising casting an alloy, plastically deforming the cast alloys, and body produced thereby. 3,533,863, 10-13-70, Cl. 156-18.

Lee, Dan Y. Polarity sensitive bi-stable regenerative switching circuit. 3,489,922, 1-13-70, Cl. 307-236.

Lee, David K. K.; Wedmore, William R.; and Vande Wege, John R., to Automatic Electric Laboratories, Inc. Digital control and memory arrangement, particularly for a communication switching system. 3,533,079, 10-6-70, Cl. 340-172.5

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Lee, Donald S., to Leesona Corporation. Wire tensioning device. 3,498,553, 3-3-70, Cl. 242-45.

Lee, Donald. Surface finishing machine. 3,520,090, 7-14-70, Cl. 51-170.

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Lee, Eugene K.: *See—*
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Lee, Francis F.; and Troxel, Donald E. Method of and apparatus for picture storage and display employing time multiplexing and recording in multiple channels. 3,511,929, 5-12-70, Cl. 178-6.6

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Lee, Harold R., to General Electric Company. Semiconductor device with composite encapsulation. 3,496,427, 2-17-70, Cl. 317-234.

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Lee, James H. Rotary finishing tool. 3,526,065, 9-1-70, Cl. 51-358.

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Lee, John F. Environment survival capsule. 3,517,401, 6-30-70, Cl. 9-14.

Lee, John H.; and Unwin, Alexander M., to Boeing Company, The. Electroluminescent color image apparatus. 3,511,925, 5-12-70, Cl. 178-5.4

Lee, John Malcolm, to Dow Chemical Company, The. Extraction of magnesium values from brines. 3,488,703, 1-6-70, Cl. 23-312.

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Lee, Kenneth P. Wraparound thimble. 3,531,029, 9-29-70, Cl. 223-101.

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Lee, Lieng-Huang; and Ranck, Dan E., to Dow Chemical Company, The. Preparation of pyruvic acid. 3,524,880, 8-18-70, Cl. 260-526.

Lee, Lin-Fa, to Du Pont de Nemours, E. I., and Company. Incorporation of water-insoluble additives into aqueous polymer solution. 3,522,209, 7-28-70, Cl. 260-45.95

Lee, Louis J.; and Thompson, John B., to Eastman Kodak Company. Method and apparatus for continuously preparing dispersions. 3,488,699, 1-6-70, Cl. 259-2.

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Lee, Norman C., to Carolina Enterprises, Inc. Spring propelled toy pellet gun. 3,550,574, 12-29-70, Cl. 124-27.

Lee, Patrick P., to Integrated Dynamics, Incorporated, mesne. Hydraulic cylinder. 3,528,346, 9-15-70, Cl. 92-128.

Lee, Paul H.; and Skolnick, Michael L., to Perkin-Elmer Corporation, The. Laser frequency stabilization system. 3,543,181, 11-24-70, Cl. 331-94.5

Lee, Ralph C. Infinitely variable belt transmission means. 3,501,970, 3-24-70, Cl. 74-230.17

Lee, Ray H. Electronic controlled time piece. 3,508,391, 4-28-70, Cl. 58-23.

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Lee, Richard J. Integral chamfering tool. 3,550,482, 12-29-70, Cl. 77-73.

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Lee, Robert L.; and Schwartz, Jacob L., to Dento Namics Corporation. Disposable plastic mounting member for three- dimensionally-adjustable face bow support. 3,528,176, 9-15-70, Cl. 32-19.

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Lee, Samuel W. Gas detector. 3,488,649, 1-6-70, Cl. 340-237.

Lee, Samuel, to Heywood, S. H., & Company Limited. Wheel or drum drives. 3,543,690, 12-1-70, Cl. 105-163.

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Lee, Tzuo-Chang, to Honeywell Inc. Electro-optic light beam deflector. 3,510,199, 5-5-70, Cl. 350-160.

Lee, Veloise W.; and McDonald, Joe P. Infrared heated dish storage apparatus. 3,536,891, 10-27-70, Cl. 219-385.

Lee, Vin Jang. Method of increasing the activity of a catalyst in the oxidation of carbon monoxide. 3,519,546, 7-7-70, Cl. 204-164.

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Lee, Walter W.; Meloro, Thomas J.; Spieker, Bernard; Fischer, Israel L.; and Ashenberg, Enoch C., to Bendix Corporation, The. Optical memory system. 3,509,543, 4-28-70, Cl. 340-173.

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Lee, William S., to Ferro Corporation. Porcelain enamels for self-cleaning cooking oven. 3,547,098, 12-15-70, Cl. 126-19.

Lee, Wing Kai, to Stevens, J. P., & Co., Inc. Graft copolymers and methods of preparation thereof. 3,492,082, 1-27-70, Cl. 8-120.

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Leebrick, John R.; and Remes, Nathaniel L., to M&T Chemicals Inc. Organo antimony mercaptides and the preparation thereof. 3,530,158, 9-22-70, Cl. 260-446.

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Leeds, Winthrop M., to Westinghouse Electric Corporation. Fluid-blast circuit interrupters with exhaust valves responsive solely to the pressure generated by an arc of excessive magnitude. 3,538,282, 11-3-70, Cl. 200-148.

Leeds, Winthrop M.; and Strom, Albert P., to Westinghouse Electric Corporation. Compressed-gas circuit interrupter with cylindrical high pressure tank supporting a spherical exhaust tank. 3,538,281, 11-3-70, Cl. 200-148.

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Leenhouts, Albert C., to Superior Electric Company, The. Method and apparatus for producing digital contour movement for a plural axes stepping motor drive. 3,525,917, 8-25-70, Cl. 318-570.

Leenhouts, Albert C.; France, William M.; and May, Joseph C., to Superior Electric Company, The. Power supply for a stepping motor. 3,505,579, 4-7-70, Cl. 318-138.

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Legendre, Pierre, to Societe Nationale des Petroles d'Aquitaine. Process for the preparation of 2-carboxythiolanes. 3,531,498, 9-29-70, Cl. 260-332.2

Leger, Alton, Jr., to Honeywell Inc. Apparatus employing ultraviolet radiation for measuring the amount of fluorescent material in a continuously flowing fluid stream. 3,510,648, 5-5-70, Cl. 250-43.5

Leger, Alton, Jr.; and Whitehead, Robert C., Jr. Percentage fat analyzer. 3,487,698, 1-6-70, Cl. 73-433.

Leger, Lucien: *See—*
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Legg, James B.: *See—*
Eldred, John W.; Legg, James B.; Hull, Jerry L.; and Johnson, Joseph C.,3,529,948.

Legge, George D.; and Sutton, Robert A., to General Motors Corporation. Flush type door handle for vehicle bodies. 3,508,778, 4-28-70, Cl. 292-336.3

Leggett & Platt Incorporated: *See—*
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Leggett, Refford L.: *See—*
Willis, James E.; and Leggett, Refford L.,3,537,545.

Leggitt, S. H., Company, Inc.: *See—*
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Legler, Frank C.; and Legler, James L. Talking speedometer. 3,546,668, 12-8-70, Cl. 340-62.

Legler, James L.: *See—*
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LeGrand, Gary F.: *See—*
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Le Grand, Jesse S.: *See—*
Dishal, Milton; and Le Grand, Jesse S.,3,526,849.

Legrand, Louis Francois; and Tresch, Charles Henri, to Sud-Aviation Societe Nationale de Constructions Aeronautiques. Vibration damping helicopter rotor support. 3,502,290, 3-24-70, Cl. 248-15.

Legrelle, Alain: *See—*
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Legris, Andre, to Society Legris & Fils. Integrated circuit fluid programmer. 3,512,553, 5-19-70, Cl. 137-635.

Le Gros, Emile Albert, to Lever Brothers Company. Smooth to coarse-faced pallet transfer. 3,499,560, 3-10-70, Cl. 214-301.

Legros, Jacques; and Henri, Eugene, to Compagnie Generale d'Electricite. Liquid anode for a gas laser. 3,541,371, 11-17-70, Cl. 313-32.

Legue, Norris R.; and Ehrlich, Arthur, to Baker Castor Oil Company, The. Vinyl urethane coating. 3,513,118, 5-19-70, Cl. 260-23.

Legue, Ronald L.: *See—*
Adkins, David E.; and Legue, Ronald L.,3,526,285.

Le Guen de Kergolan, Claude, to Compagnie Generale des Produits Industries et de Synthese C.O.G.E.P.R.I.S. Particular polishing apparatus having a vertical working vessel. 3,500,590, 3-17-70, Cl. 51-164.

Leguy, Bernard: *See—*
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Lehigh Valley Industries, Inc.: *See—*
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Lehikoinen, Urho A., to Ethyl Corporation. Chemiluminescent smokes. 3,496,111, 2-17-70, Cl. 252-188.3

Lehikoinen, Urho A., to Ethyl Corporation. Chemiluminescent and smoke producing composition and method. 3,551,343, 12-29-70, Cl. 252-188.3

Lehikoinen, Urho Albert, to Ethyl Corporation. Aluminum-iron oxide incendiary composition containing a (cyclopentadienyl) iron compound. 3,498,857, 3-3-70, Cl. 149-21.

Lehikoinen, Urho Albert, to Ethyl Corporation. Chemiluminescent smokes. 3,551,341, 12-29-70, Cl. 252-188.3

Lehikoinen, Urho Albert, to Ethyl Corporation. Chemiluminescent smokes. 3,551,342, 12-29-70, Cl. 252-188.3

Lehman, Harvey R., to Bell Telephone Laboratories, Incorporated. Circuit for converting sinusoidal signals into symmetrical square wave signals. 3,502,911, 3-24-70, Cl. 307-261.

Lehman, Kenneth A., to Atlantic Richfield Company. Offshore holding apparatus. 3,528,497, 9-15-70, Cl. 166-0.5

Lehman, Leon M.; and Johnson, Axel R., to Hydrocarbon Research, Inc. High conversion level hydrogenation of residuum. 3,549,517, 12-22-70, Cl. 208-108.

Lehman, Meir M.: *See—*
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Lehman, Meir M.; Rosenfeld, Jack L.; and Schlaeppi, Hans P., to International Business Machines Corporation. Program interlock arrangement, including task suspension and new task assignment. 3,528,062, 9-8-70, Cl. 340-172.5

Lehman, Meir M.; Rosenfeld, Jack L.; and Schlaeppi, Hans P., to International Business Machines Corporation. Serial cross-bar bussing system. 3,551,894, 12-29-70, Cl. 340-172.5

Lehman Specialty Company: *See—*
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Lehman, Willis W.; Olson, Elwood A.; and O'Neal Leo E., to Wilson and Co., Inc. Method and apparatus for removing hair roots from pork bellies. 3,520,011, 7-14-70, Cl. 17-1.

Lehmann, George C.; and Slade, Frank A., to Hercules Galion Products, Inc. Motor operated dispenser. 3,529,749, 9-22-70, Cl. 222-66.

Lehmann, Gerhard: *See—*
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Lehmann, Hans-Gunter; Gibian, Heinz; Weichert, Rudolf; and Neumann, Friedmund, to Schering AG. 17α-Ethinyl-18-methyl-19-nortestosterone esters 3,514,514, 424-238.

Lehmann, Hans W.; and Robbins, Murray, to RCA Corporation. Ferromagnetic-semiconductor composition. 3,491,026, 1-20-70, Cl. 252-62.3

Lehmann, Hein & Co., A.G.: *See—*
Siepe, Werner L.; and Schmidt, Heinrich F., 3,496,016.

Lehmann, Heinz: *See—*
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Lehmann, Herbert G., to Valve Corporation of America. Hand-held dispenser with mixing valves. 3,499,581, 3-10-70, Cl. 222-132.

Lehmann, Herbert G., to Valve Corporation of America. Hand-held dispenser with two containers and two valves. 3,543,965, 12-1-70, Cl. 222-94.

Lehmann, Herbert G., to Valve Corporation of America. Hand-held dispenser for mixing fluids. 3,550,813, 12-29-70, Cl. 222-94.

Lehmann, Jean-Claude: *See—*
Kastler, Alfred; and Lehmann, Jean-Claude,3,500,176.

Lehmann, Klaus; Markert, Gerhard; and Rothgang, Gerhart W. E., to Rohm & Haas G.m.b.H. Solid oral drug medicament coated for rapid or gradual release with copolymers of polymerizable quaternary ammonium monomers and water-insoluble. 3,520,970, 7-21-70, Cl. 424-25.

Lehmann, Paul W; and van Heyen, Johan N. H., to Signode Corporation. Apparatus for tightening and strapping involutely wound sheet metal coils. 3,533,351, 10-13-70, Cl. 100-7.

Lehmann, Peter: *See—*
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Lehmann, Richard P.; and Seccombe, Robert J., to Ingersoll-Rand Company. Rotary power tool having rotation reversing and shutoff means. 3,494,430, 2-10-70, Cl. 173-12.

Lehmann, Richard P.; and Seccombe, Robert J., to Ingersoll-Rand Company. Manufacturing transfer system. 3,504,781, 4-7-70, Cl. 198-19.

Lehmann, William L.; and Marsh, James C., Jr., to RCA Corporation. Compensated VHF-UHF automatic gain control delay system. 3,548,315, 12-15-70, Cl. 325-410.

Lehmann, Willi, to Westinghouse Electric Corporation. Long-afterglow phosphor. 3,507,805, 4-21-70, Cl. 252-301.6

Lehmann, Willi, to Westinghouse Electric Corporation. Injection-electroluminescent device with graded heterojunctions and method of manufacturing such devices. 3,510,715, 5-5-70, Cl. 313-108.

Lehmann, Willi, to Westinghouse Electric Corporation. Cathode-ray device which incorporates high speed phosphors. 3,534,210, 10-13-70, Cl. 313-92.

Lehmann, Willi, to Westinghouse Electric Corporation. Cathode-ray device which incorporates high-speed phosphors. 3,534,211, 10-13-70, Cl. 313-92.

Lehmann, Wolfgang; and Gobel, Wilhelm, to Farbenfabriken Bayer Aktiengesellschaft. Stabilized chlorine containing polymers. 3,509,093, 4-28-70, Cl. 260-45.85

Lehmann, Wolfgang: *See—*
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Ziemann, Heinz; Zenner, Karl-Friedrich; Lehmann, Wolfgang; and Troemel, Gerhard,3,551,288.

Lehmer, Wilhelm, to Linde Aktiengesellschaft. Process for decontaminating radioactive fluids. 3,501,923, 3-24-70, Cl. 62-18.

Lehmkuhl, Herbert: *See—*
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Lehmkuhl, Robert A., to Carlton Machine Tool Company, The. Spindle clamp. 3,545,335, 12-8-70, Cl. 90-11.

Lehn, Bernard J. Sleeve type hair curler. 3,498,300, 3-3-70, Cl. 132-40.

Lehnen, Joseph P., to Englebert Aktiengesellschaft. Process of vulcanizing molded articles. 3,489,833, 1-13-70, Cl. 264-315.

Lehner, Erwin, to Vereinigte Osterreichische Eisen- und Stahlwerke Aktiengesellschaft. Apparatus for molding and aligning prismatic bricks having a substantially trapezoidal base. 3,516,128, 6-23-70, Cl. 25-67.

Lehner, Florian; van Daalen, Francois; and van der Knaap, Willem, to Shell Oil Company. Method of recovering crude oil from a subsurface formation. 3,500,917, 3-17-70, Cl. 166-272.

Lehner, Florian: *See—*
van der Knaap, Willem; van Daalen, Francois; and Lehner, Florian,3,500,916.

Lehner, Karl, to Vickers-Zimmer Aktiengesellschaft, Planung und Bau von Industrieanlager. Apparatus for the drive of pumps. 3,520,022, 7-14-70, Cl. 18-8.

Lehner, Leo L.: *See—*
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Lehnert, Gunther, to Kabel- und Metallwerke Gutehoffnungshutte Aktiengesellschaft. Apparatus for trimming electrical insulation. 3,513,732, 5-26-70, Cl. 82-20.

Lehnert, Gunther; and Gopon, Walter, to Kabel- und Metallwerke Gutehoffnungshutte Aktiengesellschaft. Method and apparatus for cleaning and degreasing metal articles. 3,491,778, 1-27-70, Cl. 134-64.

Lehnert, Gunther; Roderburg, Harald; and Ziemek, Gerhard, to Kabel- und Metallwerke Gutehoffnungshutte Aktiengesellschaft. Multi-arc seam welding apparatus for thin metal sheet. 3,544,752, 12-1-70, Cl. 219-60.

Lehnhardt, Stanley E.: *See—*
Nelson, George G.; and Lehnhardt, Stanley E.,3,512,131.

Lehoczky, Kalman Nagy, to Aktiengesellschaft Brown, Boveri & Cie Baden. Combined axial and radial bearing with liquid lubricating fluid for vertical axis machine. 3,501,206, 3-17-70, Cl. 308-160.

Lehovec, Kurt, to Inventors and Investors, Inc. Modulation of current flow in a semiconductor. 3,491,241, 1-20-70, Cl. 250-211.

Lehovec, Kurt, to Sprague Electric Company. Visual display of time variable electric information. 3,516,242, 6-23-70, Cl. 58-23.

Lehovec, Kurt, to Inventors and Investors, Inc. Electro-optical displacement measurer using zone plates. 3,546,469, 12-8-70, Cl. 250-219.

Lehr, Charles F. Aerial photogrammetry system employing dual light beams. 3,511,927, 5-12-70, Cl. 178-6.5

Lehr, Glen J.: *See—*
Oelke, Waldemar W.; Lehr, Glen J.; and Herrington, Richard A.,3,506,430.

Lehr, Hannis Hanina: *See—*
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Lehr, Hanns Hanina; and Mitrovic, Milan, to Hoffmann-La Roche Inc. Substituted dioxocyclohexyl-p- toluenesulfonamides. 3,536,757, 10-27-70, Cl. 260-556.

Lehr, Robert M.: *See—*
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Lehrer, Alfred: *See—*
Haslimann, Artur Alois; Morris, John; Roger, Karl Wolfgang; and Lehrer, Alfred,3,507,546.

Lehrer, Stanley, to Astrosystems International, Inc. Steady intensity incandescent light source. 3,499,718, 3-10-70, Cl. 431-4.

Lehrer, William I., to Fairchild Camera and Instrument Corporation. Double masking technique for integrated circuit. 3,498,833, 3-3-70, Cl. 117-212.

Lehrer, William I.; and De Fevere, Dennis C., to Fairchild Camera and Instrument Corporation. Glow discharge display device with suppressor plate. 3,538,371, 11-3-70, Cl. 313-109.5

Lehrer, William I.; and Kroemer, Herbert. Light emitting heterojunction semiconductor devices. 3,488,542, 1-6-70, Cl. 313-108.

Lehrman, David, to Ironces Company, The. Iron rest. 3,550,888, 12-29-70, Cl. 248-117.2

Lehtinen, Antti Ilmari; and Kuusi, Eino Juhani, to Valmet Oy. Method for measuring quantities associated with the filler distribution of paper. 3,530,296, 9-22-70, Cl. 250-83.

Lehtinen, Antti, to Valmet Oy. Method and device for determining non-uniform paper formation. 3,525,871, 8-25-70, Cl. 250-219.

Lehto, Charles N., to Goodyear Tire & Rubber Company, The. Multi-layer liner for a container. 3,519,164, 7-7-70, Cl. 220-63.

Lehtonen, Richard M. Trimming shears with operating handle. 3,545,082, 12-8-70, Cl. 30-248.

Lehureau, Jean, to Progil. Stabilization process of metal ethylene bis- dithiocarbamates. 3,523,960, 8-11-70, Cl. 260-429.

Leib, Kenneth G.; and Eng, Richard S., to Grumman Corporation. Optical focusing system utilizing birefringent lenses. 3,520,592, 7-14-70, Cl. 350-150.

Leib, Robert G.: *See—*
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Leibee, Donald L.; and Oaks, Seibert S., to Kennametal Inc. Arrangement for drilling in mines. 3,519,091, 7-7-70, Cl. 175-320.

Leiber, Heinz, to Graubremse G.m.b.H., and Teldix Luftfahrt-Ausrunstungs-G.m.b.H. Apparatus for the regulation of the braking pressure to obtain a non-skid effect in automotive vehicles. 3,494,670, 2-10-70, Cl. 303-21.

Leiber, Heinz, to Teldix Gesellschaft mit beschrankter Haftung. Signalling means for a brake control system. 3,498,422, 3-3-70, Cl. 188-181.

Leiber, Heinz, to Teldix Luftfahrt-Ausrustungs G.m.b.H. Vehicle brake control system for preventing wheel locking. 3,498,683, 3-3-70, Cl. 303-21.

Leiber, Heinz, to Teldix G.m.b.H. Anti wheel-locking brake control system safety device. 3,514,160, 5-26-70, Cl. 303-21.

Leiber, Heinz, to Teldix Luftfahrt-Ausrustungs GmbH. Apparatus for preventing loss of braking force in a hydraulic brake system having a brake control system for preventing wheel locking. 3,521,934, 7-28-70, Cl. 303-21.

Leiber, Heinz, to Teldix G.m.b.H. Vehicle brake control system for preventing wheel locking. 3,523,712, 8-11-70, Cl. 303-21.

Leiber, Heinz, to Teldix Gesellschaft mit beschrankter Haftung. Electromagnetically actuated stroke adjustable valve. 3,529,620, 9-22-70, Cl. 137-269.

Leiber, Heinz, to Teldix GmbH. Anti-locking control system for pressure-actuated vehicle brakes. 3,549,211, 12-22-70, Cl. 303-21.

Leiber, Heinz, to Teldix GmbH. Anti-locking control system. 3,549,212, 12-22-70, Cl. 303-21.

Leiber, Heinz, to Teldix GmbH. Brake control system for preventing wheel locking. 3,550,966, 12-29-70, Cl. 303-21.

Leiber, Heinz; and Brunner, Dietrich, to Teldix GmbH. Multiple valve arrangement. 3,538,947, 11-10-70, Cl. 137-550.

Leiber, Heinz; and Steusloff, Hartwig, to Teldix Gesellschaft mit beschrankter Haftung. Brake control system for preventing wheel locking. 3,542,437, 11-24-70, Cl. 303-21.

Leiber, Heinz; Wehde, Heinz; and Brunner, Dietrich, to Teldix Gesellschaft mit beschranter Haftung. Electromagnetically actuated valve with a plunger- type armature arrangement. 3,521,854, 7-28-70, Cl. 251-129.

Leibfritz, Kurt W.: *See—*
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Leibfritz, Kurt W.; and Malinowski, Lester W., to Parker-Hannifin Corporation. Solenoid operated valve assembly. 3,487,848, 1-6-70, Cl. 137-271.

Leibfritz, Kurt W.; and Malinowski, Lester W., to Parker-Hannifin Corporation. Manual control for solenoid valve. 3,540,480, 11-17-70, Cl. 137-625.6

Leibhard, Erich: *See—*
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Leibinger, Berthold; Herb, Eugen; and Eichenbrenner, Wolfgang, to Trumpf & Co. Nibbling tool with recessed punch. 3,523,475, 8-11-70, Cl. 83-467.

Leibinger, George E., to General Electric Company. Stranded winding for high current electric apparatus. 3,538,473, 11-3-70, Cl. 336-187.

Leibowitz, Alec, to Spectrum Diamonds (Proprietary) Limited. Gem stone polishing machine. 3,520,088, 7-14-70, Cl. 51-122.

Leibowitz, Alec, to Spectrum Diamonds (Proprietary) Limited. Method of faceting gem stones. 3,534,510, 10-20-70, Cl. 51-283.

Leibowitz, Alec, to Spectrum Diamonds (Proprietary) Limited. Apparatus to control gravitational movement of a gemstone polishing tang towards a stone polishing surface. 3,543,447, 12-1-70, Cl. 51-125.

Leibowitz, Alec, to Spectrum Diamonds (Proprietary) Limited. Apparatus for controlling reciprocatory movement of a gemstone across a polishing surface. 3,543,450, 12-1-70, Cl. 51-229.

Leibowitz, Lawrence M.; and Tretick, Bernard A., to United States of America, Navy. Short duration signal burst frequency meter. 3,546,585, 12-8-70, Cl. 324-79.

Leibowitz, Marshall: *See—*
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Leibowitz, Marvin R.; and Grosser, Frederick, to GAF Corporation. Methods of polymerizing N-vinyl lactams. 3,511,823, 5-12-70, Cl. 260-88.3

Leibowitz, William; DeLise, Frank; Gardel, Robert; and Gorsky, Egon, to Doltac Company, division of Jacoby-Bender, Inc. Side sleeping doll eye. 3,530,616, 9-29-70, Cl. 46-169.

Leibreich, Norman A., to Mead Corporation, The. Dispenser for a continuous strip. 3,507,428, 4-21-70, Cl. 225-11.

Leibson, Irving; and Erchak, Michael, Jr., to Dart Industries Inc. Process for preparing block polymers from alpha-olefins. 3,514,501, 5-26-70, Cl. 260-878.

Leibundgut, Alfred; and Szasz, Imre, to Gema AG Apparatebau. Pneumatic conveyer system. 3,504,945, 4-7-70, Cl. 302-40.

Leiby, David W.: *See—*
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Leichti, Ludwig, to Grammes, L. F., and Sons, Incorporated. Vehicle headrest construction. 3,498,672, 3-3-70, Cl. 297-410.

Leidig, Theodor, to Haarmann & Reimer GmbH. Transesterification of myrcene hydrochloride. 3,509,205, 4-28-70, Cl. 260-489.

Leidvik, Martin: *See—*
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Leifeld, Klaus; and Volkhausen, Clemens, to Schloemann Aktiengesellschaft. Multiroll stands. 3,523,439, 8-11-70, Cl. 72-241.

Leifeld, Klaus; Wochnik, Josef; and Stoy, Erich, to Schloemann Aktiengesellschaft. Multi-roll stands. 3,546,914, 12-15-70, Cl. 72-242.

Leifeld, Klaus: *See—*
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Leifer, John L., to Bostwick Steel Lath Company, The. Track for steel stud partitions. 3,536,345, 10-27-70, Cl. 287-54.

Leifer, Noel A., to Bell Telephone Laboratories, Incorporated. Verification of magnetic recording. 3,535,687, 10-20-70, Cl. 340-174.1

Leifheit, Gunter, KG: *See—*
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Leiga, Algird G.: *See—*
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Leigh, Philip G., to Systron-Donner Corporation. Servo torque balance DC rate gyro. 3,526,144, 9-1-70, Cl. 74-5.5.

Leigh, Thomas; and McArdle, Leslie Arthur, to Imperial Chemical Industries Limited. Carboxylic acid derivatives. 3,549,690, 12-22-70, Cl. 260-473.

Leigh, Thomas; and McArdle, Leslie Arthur, to Imperial Chemical Industries Limited. Aralkyloxy alkanoic acids. 3,549,691, 12-22-70, Cl. 260-473.

Leightner, Robert A.: *See—*
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Leighty, Clifford A.; and Sullivan, Bernard J., to Bausch & Lomb Incorporated. Peak occurrence detector circuit. 3,541,457, 11-17-70, Cl. 328-150.

Leijon, Tage Nils Wilhelm. Side dump bucket arrangement. 3,531,007, 9-29-70, Cl. 214-768.

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Leikarts, Aldis Juris, to Streater Industries, Inc. Display rack with spiral shelves. 3,543,699, 12-1-70, Cl. 108-59.

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Leimgruber, Willy: *See—*
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Leimgruber, Willy; and Schenker, Fausto Eugenio, to Hoffmann-La Roche Inc. Benzodiazepine compounds and process for their preparation. 3,523,941, 8-11-70, Cl. 260-239.3

Leimgruber, Willy; and Weigele, Manfred, to Hoffmann-La Roche Inc. 1 Acylated, 6 methoxy phenazine 5, 10-dioxides. 3,530,130, 9-22-70, Cl. 260-267.

Leimgruber, Willy; and Weigele, Manfred, to Hoffmann-La Roche Inc. Process for the preparation of aminomethylene malonitrile. 3,542,848, 11-24-70, Cl. 260-465.4

Leimgruber, Willy; and Ziering, Albert, to Hoffman-La Roche Inc. Certain 1,2,3,6-tetrahydro-pyridine-derivatives. 3,546,239, 12-8-70, Cl. 260-297.

Leimontas, Bruno J.; and Paradise, Edson M., to Connector Corporation. Kinescope socket with spark gap. 3,502,933, 3-24-70, Cl. 313-325.

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Leiner, P., & Sons (Encapsulations) Limited: *See—*
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Mehta, Maharaj Krishen, 3,549,056.

Leiner, William. Heater control. 3,517,163, 6-23-70, Cl. 219-364.

Leinfelder, Bernhard A., to Millipore Corporation, mesne. Phase sensitive detector. 3,519,841, 7-7-70, Cl. 307-232.

Leining, Lyndon R., to Hormel, Geo A., & Company. Control device for use with a dispensing machine. 3,511,410, 5-12-70, Cl. 222-45.

Leinkram, Charles Z., to Westinghouse Electric Corporation. Thin film resistor and method for making same. 3,519,891, 7-7-70, Cl. 317-101.

Leinkram, Charles Z.; and Shimkus, Michael A., to United States of America, Navy. Flatpack lid and method. 3,538,597, 11-10-70, Cl. 29-588.

Leipold, Forrest P., to Roto-Finish Company. Continuous method of making abrasive finishing materials. 3,503,725, 3-31-70, Cl. 51-298.

Leis, Dieter, to Pfrimmer, J., and Co. Device for measuring blood pressure in a vein of a patient. 3,541,859, 11-24-70, Cl. 73-402.

Leis, Michael D.: *See—*
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Lentz, Forrest G., to Western Electric Company, Incorporated. Method of and apparatus for loading semiconductor devices. 3,518,752, 7-7-70, Cl. 29-588.

Lentz, John J., to International Business Machines Corporation. Digital computer. 3,517,391, 6-23-70, Cl. 340-172.5

Lentz, Rex A.; and Cudnohufsky, Sylvester R., to Babcock & Wilcox Company, The. Antichatter positive feed control for broaching machines and the like. 3,494,128, 2-10-70, Cl. 60-52.

Lenz, Arnold; and Rogler, Walter, to Dynamit Nobel Aktiengesellschaft. Reduction of hydride losses from molten baths containing hydrides. 3,494,793, 2-10-70, Cl. 134-2.

Lenz, Arnold; and Rogler, Walter, to Dynamit Nobel Aktiengesellschaft. Process for the removal of scale from very scaly metal surfaces. 3,506,487, 4-14-70, Cl. 134-2.

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Lenz, Walter H., to Caterpillar Tractor Company. Apparatus for quenching steel plate. 3,546,911, 12-15-70, Cl. 72-201.

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Levine, David J.; and Levinstein, Moses A.,3,540,878.

Levishko, Anatoly Alexandrovich; and Kaljunov, Gennady Alexandrovich. Cone gyratory crusher. 3,550,870, 12-29-70, Cl. 241-215.

Levison, Jack, to Plessey Company Limited, The. Brushless electric motors. 3,546,546, 12-8-70, Cl. 318-138.

Levison, Louis E.; and Elsenson, Herbert Ford, to International Manufacturing Company, Inc. Abrasive blast cleaning apparatus. 3,523,391, 8-11-70, Cl. 51-8.

Levit, Edward C., to Steelcase, Inc. Resilient seat and platform assembly. 3,550,927, 12-29-70, Cl. 267-110.

Levitan, Maurice D.: *See—*
Staats, Henry N.; Levitan, Maurice D.; and Vincent, Donald P.,3,533,886.

Levitan, Paul: *See—*
Schipper, Edgar S.; and Levitan, Paul,3,488,352.

Levite, Gideon, to Baldwin-Lima-Hamilton Corporation. Elongated tubular flash evaporator-condenser with spaced partitions. 3,497,422, 2-24-70, Cl. 202-173.

Leviton Manufacturing Co. Inc.: *See—*
Johnson, George E., 3,524,053.
Pollak, John M., 3,497,646.

Levitov, Leo; and Young, Joseph P., to Tropical Fish Patterns, Inc. Introduction tank for aquariums. 3,491,722, 1-27-70, Cl. 119-3.

Levitsky, Anatoly Kunmich: *See—*
Chigirinsky, Alexandr Abramovich; Spivak, Boris Volkovich; Stanislavsky, Lazar Yankelevich; Rabinovich, Vladimir Mordokheevich; Levitsky, Anatoly Kunmich; Kraschenko, Alexandr Ivanovich; Gradov, Oleg Borisovich; and Glider, Evgeny Khaimovich,3,544,823.

Levitt, George, to Du Pont de Nemours, E. I., and Company. Substituted oxazolines, useful as pharmaceuticals. 3,499,083, 3-3-70, Cl. 424-246.

Levitt, George, to Du Pont de Nemours, E. I., and Company. Substituted oxazolines, useful as pharmaceuticals. 3,499,084, 3-3-70, Cl. 424-272.

Levitt, George, to Du Pont de Nemours, E. I., and Company. Heterocyclic amino-oxazolines. 3,509,170, 4-28-70, Cl. 260-307.

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Levitt, Harry, to Bell Telephone Laboratories, Incorporated. Binaural fusion listening system. 3,504,120, 3-31-70, Cl. 179-1.

Levitz, Norman M.: *See—*
Ramaswami, Devabaktuni; Jonke, Albert A.; and Levitz, Norman M.,3,541,762.

Levon, Ernest F., to Searle, G. D., & Co. 2-(Cyclic amino)-2H-indazoles. 3,501,482, 3-17-70, Cl. 260-293.

Le Von, Ernest F., to Searle, G. D., & Co. 2-Piperazinyl-2H-indazoles. 3,534,042, 10-13-70, Cl. 260-268.

Levoy, Myron M.; and Dimmock, Thomas H., to Thiokol Chemical Corporation. Plasma energy system and method. 3,505,550, 4-7-70, Cl. 313-63.

Levoy's Inc.:*See—*
Sorenson, James L., 3,506,014.

Levrat, Charly Andre, to Fabriques Movado. Timepiece case with movement-securing shock- absorbing means. 3,492,810, 2-3-70, Cl. 58-88.

Levrini, Tullio. Hydraulic actuating device. 3,534,551, 10-20-70, Cl. 60-52.

Levtchouk, George; and Britten, John Charles, to Midland-Ross Corporation. Threading apparatus for web dryers. 3,508,342, 4-28-70, Cl. 34-120.

Levy, Alan J.; and Litt, Morton H., to Allied Chemical Corporation. Novel oxazolines and oxazines. 3,493,568, 2-3-70, Cl. 260-244.

Levy, Alan J.; and Litt, Morton H., to Allied Chemical Corporation. Crosslinked polymers of 2-hydroxy-alkyl or alkenyl oxazines and oxazolines. 3,542,699, 11-24-70, Cl. 260-2.

Levy, Andre: *See—*
Gouilloud, Michel Marie Albert; and Levy, Andre,3,551,797.

Levy, Avner M.: *See—*
Anderson, Robert L.; and Levy, Avner M.,3,526,885.

Levy, Barnett. Venting members for core boxes and other moulds. 3,529,656, 9-22-70, Cl. 164-234.

Levy, Boris, to Mobil Oil Corporation. Radiation-induced ion-molecule reactions. 3,507,760, 4-21-70, Cl. 204-157.1

Levy, Dale F.: *See—*
Bennett, Richard J.; Gagle, Duane W.; Draper, Homer L.; and Levy, Dale F.,3,525,467.
Draper, Homer L.; Levy, Dale F.; and Gagle, Duane W.,3,547,674.

Levy, Donald J., to Lockheed Aircraft Corporation. Deposition of gold films. 3,515,571, 6-2-70, Cl. 117-35.

Levy, Edward R.: *See—*
Rattenbury, Kenneth H.; Levy, Edward R.; and Zakaryan, Ara,3,510,486.

Levy, Erwin. Universal conduit support bracket. 3,503,580, 3-31-70, Cl. 248-62.

Levy, Eugene J., to Hewlett-Packard Company. Method and apparatus for determining chemical structure. 3,518,059, 6-30-70, Cl. 23-232.

Levy, Eugene J.; and Paul, Donald G., to Hewlett-Packard Company. Method and apparatus for determining the molecular weight of volatile compounds. 3,545,255, 12-8-70, Cl. 73-30.

Levy, Gerald S.: *See—*
United States of America,National Aeronautics and Space Administration, Administrator, 3,534,375.

Levy, Harold F.; and Levy, Leonard D. Combination packaging structure, trouble light and replacement head lamp. 3,515,864, 6-2-70, Cl. 240-44.2

Levy, Jacob Morris. Lather making machine. 3,523,908, 8-11-70, Cl. 252-359.

Levy, Joseph, to Universal Oil Products Company. Tertiary-aminoalkyl derivatives of substituted acetohydroxamic acid esters. 3,488,355, 1-6-70, Cl. 260-294.

Levy, Leon B., to Celanese Corporation. Preparation of paraformaldehyde. 3,492,357, 1-27-70, Cl. 260-615.5

Levy, Leonard D.: *See—*
Levy, Harold F.; and Levy, Leonard D.,3,515,864.

Levy, Louis: *See—*
Kerley, Troy L.; and Levy, Louis,3,532,796.

Levy, Marshall M.: *See—*
D'Eustachio, Dominic; and Levy, Marshall M.,3,510,392.

Levy, Maurice E., to Vitro Corporation of America. High intensity source of selected radiation. 3,512,030, 5-12-70, Cl. 313-231.

Levy, Morris G., Jr. Greeting cards and brochures with provision for enlargement-viewing of miniature copy or pictures contained therein. 3,488,872, 1-13-70, Cl. 40-63.

Levy, Mortimer, to Xerox Corporation. Xerographic plate containing aluminum selenide barrier layer. 3,508,918, 4-28-70, Cl. 96-1.5

Levy, Moshe: *See—*
Arad, Yael; Levy, Moshe; Rosen, Haim; and Vofsi, David,3,519,674.
Arad, Yael; Levy, Moshe; Vofsi, David; and Rosen, Haim,3,547,975.

Levy, Newton, Jr.; and Vanik, Milton C., to Grace, W. R., & Co. Process for the preparation of stabilized zirconia powders. 3,514,252, 5-26-70, Cl. 23-22.

Levy, Oscar C.; and Groth, George A., to American Totalisator Company, Inc. Apparatus for recording sales and the like. 3,541,526, 11-17-70, Cl. 340-172.5

Levy, Sheldon G., to Dow Chemical Company, The. Solvent compositions for natural and synthetic rubber base adhesives. 3,541,042, 11-17-70, Cl. 260-33.8

Levy, Sheldon: *See—*
Greif, Norman L.; Levy, Sheldon; Perlberg, William; and Schwarz, Milton H.,3,530,215.

Levy, Sidney, to Burndy Corporation. High-current switch with secondary contact pin coupled in offset relationship to principal contact. 3,542,987, 11-24-70, Cl. 200-165.

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Levy-Pascal, Arie E.: *See—*
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Lew, Jem Yin: *See—*
Graham, Stanley Lewis; Rosenberg, Marvin; Le Vasseur, Gilbert Edward, Sr.; Jones, Willburn Lewis; Lew, Jem Yin; and Challiss, John Van Hoesen,3,516,274.

Lewallen, Daniel A. Liner puller. 3,516,143, 6-23-70, Cl. 29-234.

Lewandowski, Joseph; and La Patta, Robert, to Federal Steel Corporation. Leg structure. 3,488,697, 1-6-70, Cl. 248-188.

Lewandowski, Raymond F.: *See—*
Golbeck, Bernard J.; and Lewandowski, Raymond F.,3,531,861.

Lewandowski, Walter A., to Popowich, J. L., & Son. Display container. 3,530,978, 9-29-70, Cl. 206-45.34

Lewbill Industries Inc.: *See—*
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Lewchuk, Richard R.: *See—*
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Lewen, Nikolaus: *See—*
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Kohler, Gerhard; Lewen, Nikolaus; and Pfau, Anton,3,542,967.
Pfau, Anton; Kohler, Gerhard; and Lewen, Nikolaus,3,506,788.

Lewen, Nikolaus; and Nigge, Klaus, to International Standard Electric Corporation. Method to supervise establishing of a connection in a crosspoint arrangement, centrally controlled through markers. 3,500,001, 3-10-70, Cl. 179-175.2

Lewenstein, Mozes Juda; and Fishman, Jack. Therapeutic compositions of N-allyl-14- hydroxy-dihydronormorphinane and morphine. 3,493,657, 2-3-70, Cl. 424-260.

Lewes, David Steel; and Hebblethwaite, Kenneth John, to National Research Development Corporation. Electrocardiograph electrodes with surface convexities. 3,505,993, 4-14-70, Cl. 128-2.06

Lewiecki, Edward M.: *See—*
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Lewin, Albert E.: *See—*
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Lewin, Anita H.; and Cohen, Theodore, to Research Corporation. Process for the production of aryl benzoate esters. 3,547,978, 12-15-70, Cl. 260-476.

Lewin, Charles C., to Lewin, Albert E. Method for indicating the dialing of toll telephone calls. 3,524,948, 8-18-70, Cl. 179-81.

Lewin, Menachem, to Ministry of Trade and Industry, The State of Israel. Fire-proofing of lignocellulosic material in two stages. 3,547,687, 12-15-70, Cl. 117-138.

Lewin, Morton H., to RCA Corporation. Character selector and generating device. 3,523,161, 8-4-70, Cl. 179-2.

Lewin, Seymour Z., to Warner-Lambert Pharmaceutical Company. Dry heating process for preparation of antacid compounds. 3,518,064, 6a30-70, Cl. 23-315.

Lewis, Alan, to Evershed & Vignoles Limited. Frequency modulation receivers for data transmission. 3,512,087, 5-12-70, Cl. 325-320.

Lewis, Allen R.: *See—*
Oranczak, Ronald; Jacoby, Charles E.; and Lewis, Allen R.,3,538,854.

Lewis, Arlin C., to Lewis, Gloria B. Method of producing electric current utilizing a copper oxide thermoelectric generator. 3,516,871, 6-23-70, Cl. 136-201.

Lewis, Arthur M. Safety pin. 3,517,421, 6-30-70, Cl. 24-162.

Lewis, Arthur R., Inc.: *See—*
Lewis, Arthur R., 3,509,581.

Lewis, Arthur R., to Lewis, Arthur R., Inc. Foundation garment and hose supporter. 3,509,581, 5-5-70, Cl. 2-240.

Lewis, Benjamin Arthur; and Shepherd, Robert Gordon, to American Cyanamid Company. 3,6-Disubstituted-pyrido[3,2-e]-as-triazines and 3,6-disubstituted-1,2-dihydropyrido[3,2-e]- triazines. 3,549,631, 12-22-70, Cl. 260-249.5

Lewis, Benjamin Arthur; and Shepherd, Robert Gordon, to American Cyanamid Company. 3-Aminopyrido[4,3-e]-as-triazine and 3-aminopyrido-[4,3-e]-as-triazine-1-oxide. 3,549,632, 12-22-70, Cl. 260-249.5

Lewis, Bernard L.: *See—*
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Lewis, Bernard L., to Radiation Incorporated. Van Atta array. 3,496,570, 2-17-70, Cl. 343-754.

Lewis, Bernard L., to Radiation Incorporated. Spacecraft stabilization and rotation system. 3,533,577, 10-13-70, Cl. 244-1.

Lewis, Beverley W.; and Progar, Donald J., to United States of America, National Aeronautics and Space Administration. Process for applying black coating to metals. 3,540,942, 11-17-70, Cl. 148-6.11

Lewis, Charles T., Jr., to Texaco Inc. Hydrocracking in the presence of controlled amounts of nitrogen. 3,524,807, 8-18-70, Cl. 208-111.

Lewis, Charles T. Inflatable boat. 3,490,085, 1-20-70, Cl. 9-2.

Lewis, Clarence A., Jr.; and Gordemer, David, to Bobst Champlain, Inc. Inserter and splicer with register control for a reprinted web. 3,510,036, 5-5-70, Cl. 226-2.

Lewis, Clifford Jackson; and DeMent, Eldon Ray, to Southwest Enterprises, Inc. Production of iron oxide pigments. 3,533,820, 10-13-70, Cl. 106-304.

Lewis, Clifford J.; and Champagne, Jean P., deceased (by McPherson, Jean Paramore, June; beneficiaries), said Lewis assor. to Chapman, Wood & Griswold Ltd. Sulfur extraction using trichloroethylene in presence of limestone, trona, and soda ash. 3,535,089, 10-20-70, Cl. 23-312.

Lewis, Colin Bright, to Associated Electrical Industries Limited. Pressure contact semiconductor devices. 3,512,249, 5-19-70, Cl. 29-588.

Lewis, Colin Bright, to Associated Electrical Industries Limited. Pressure contact semiconductor devices. 3,513,359, 5-19-70, Cl. 317-234.

Lewis, Colin Bright, to Associated Electrical Industries Limited. Semiconductor device having an electrode with a laterally extending channel formed therein. 3,536,966, 10-27-70, Cl. 317-234.

Lewis, Dale R.: *See—*
Hauenstein, Carroll W.; and Lewis, Dale R.,3,489,041.

Lewis, David Adrian; Lewis, Victor Marcus; and Lewis, John Moseley. Quick cooking foodstuffs. 3,495,989, 2-17-70, Cl. 99-80.

Lewis, Donald E.; and Shenton, Clarence R., to Melpar, Inc. Integral reed tuning fork. 3,517,230, 6-23-70, Cl. 310-25.

Lewis, Donald J.; and Gardner, Frank H., to Space Ordnance Systems, Inc. Explosive detonating device. 3,528,372, 9-15-70, Cl. 102-70.2

Lewis, Dong Sing, to Gerity-Schultz Corporation. Casting apparatus. 3,547,181, 12-15-70, Cl. 164-265.

Lewis, Douglas R., to Ethylene Corporation. Flexible coupling having expansion and contraction limiting means. 3,527,481, 9-8-70, Cl. 285-114.

Lewis, Dwight C., to Penn Controls, Inc. Hot wire type spring motor actuator for switches. 3,493,910, 2-3-70, Cl. 337-126.

Lewis, Dwight Charles: *See—*
Kaminky, Oscar Herman; and Lewis, Dwight Charles,3,494,198.

Lewis, Dwight Charles, to Penn Controls, Inc. Single and multi-stage electronic switching control with adjustable operating differential. 3,541,359, 11-17-70, Cl. 307-310.

Lewis, Earl R., to Monarch Laboratories, Inc. Air treatment device. 3,522,935, 8-4-70, Cl. 261-30.

Lewis, Edward H. Multiple-light bar for portable camera. 3,550,519, 12-29-70, Cl. 95-86.

Lewis, Edward V., to California Computer Products, Inc. Manual optical digitizer. 3,515,888, 6-2-70, Cl. 250-237.

Lewis, Edward V.; and Trousdale, Robert B., to California Computer Products, Inc. Photographic recorder and processor. 3,500,734, 3-17-70, Cl. 95-14.

Lewis, Emil H., to Esso Research and Engineering Company. Process for upgrading steam cracked fractions. 3,496,095, 2-17-70, Cl. 208-57.

Lewis Engineering Company: *See—*
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Lewis, Ernest E., to General Electric Company. Stabilized hydromechanical pressure control valve. 3,528,454, 9-15-70, Cl. 137-625.69

Lewis, Evan T., to Jacobsen Manufacturing Company. Adjustable means for countering the cutting reaction torque in a lawnmower. 3,496,711, 2-24-70, Cl. 56-253.

Lewis, Francis W.: *See—*
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Lewis, Gene E.: *See—*
White, Eugene R.; and Lewis, Gene E.,3,503,151.

Lewis, George E., to Hydril Company. Rotary plug well safety valve. 3,509,913, 5-5-70, Cl. 137-614.11

Lewis, George E., to Hydril Company. Underwater control system. 3,516,491, 6-23-70, Cl. 166-0.6

Lewis, George E., to Hydril Company. Kelly packer and lubricator. 3,529,835, 9-22-70, Cl. 277-2.

Lewis, George E.; Murman, Fernando; and Dunn, Alan I., to Hydril Company. Well pressure compensated well blowout preventer. 3,533,468, 10-13-70, Cl. 166-0.5

Lewis, George G., to Schlumberger Technology Corporation. Apparatus for handling well tool cables. 3,507,478, 4-21-70, Cl. 254-175.7

Lewis, Gerald F.: *See—*
Dunham, Homer R. G.; and Lewis, Gerald F.,3,530,590.

Lewis, Gerald F. Retractor for seat belts and the like. 3,537,666, 11-3-70, Cl. 242-107.

Lewis, Gerald F.; and Palmieri, Ronald J., to Robbins, Jim, Seat Belt Co. Belt locking device with electrical energizing means. 3,535,001, 10-20-70, Cl. 297-388.

Lewis, Gerald P.: *See—*
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Lewis, Gloria B.: *See—*
Lewis, Arlin C., 3,516,871.

Lewis, Harry M., to Modern Engraving and Machine Corporation. In-line carriage arrangement for embossing machines. 3,500,744, 3-17-70, Cl. 101-23.

Lewis, Harry M., to Modern Engraving and Machine Corporation. Cam actuated locking device. 3,516,352, 6-23-70, Cl. 101-23.

Lewis, Harry T., Jr., to Tennessee Valley Authority. Production of nitrogen-phosphorus compounds. 3,539,328, 11-10-70, Cl. 71-34.

Lewis, Isabel; and French, Ruth A. Method and apparatus for teaching reading. 3,497,967, 3-3-70, Cl. 35-35.

Lewis, J. Stephen; Lemkin, Jack L.; Sanchez, George; Sapkus, Jurgis; and Ryan, John W., to Mattel, Inc. Appendage animating means for figure toys. 3,492,759, 2-3-70, Cl. 46-102.

Lewis, James Gabriel, to Imperial Tobacco Company, (of Great Britain & Ireland) Limited, The. Plural stage fluidization and vibration of cohesive plant material. 3,511,843, 5-12-70, Cl. 260-291.

Lewis, James H. Liquid soap dispensing bottle. 3,545,651, 12-8-70, Cl. 222-181.

Lewis, James M.: *See—*
Fichter, Harry L., Jr.; and Lewis, James M.,3,510,304.

Lewis, James M., to Horizons Incorporated, a division of Horizons Research Incorporated. Phenolic stabilizer in non-silver photosensitive composition. 3,510,309, 5-5-70, Cl. 96-90.
Petro, Victor P.; Lewis, James M.; and Wainer, Eugene,3,533,792.

Lewis, John C., to Park-Ohio Industries, Inc. Method of forming continuous elements from molten metal. 3,498,362, 3-3-70, Cl. 164-87.

Lewis, John G., to Emerson Electric Co. Dynamo-electric machine end shield arrangement. 3,489,934, 1-13-70, Cl. 310-43.

Lewis, John G., to Emerson Electric Co. Capacitor clamp for electric motor. 3,490,820, 1-20-70, Cl. 310-72.

Lewis, John G., to Emerson Electric Co. Motor lead connector box. 3,518,616, 6-30-70, Cl. 339-107.

Lewis, John, Jr. Soft X-ray device with demountable electrodes. 3,492,521, 1-27-70, Cl. 313-55.

Lewis, John Moseley: *See—*
Lewis, David Adrian; Lewis, Victor Marcus; and Lewis, John Moseley,3,495,989.

Lewis, John R., to Hercules Incorporated. Laminates of aluminum and polypropylene foam and method therefor. 3,499,819, 3-10-70, Cl. 161-161.

Lewis, Joseph: *See—*
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Lewis, Joseph C.: *See—*
Muser, Carl J.; Melill, Joseph; and Lewis, Joseph C.,3,547,599.

Lewis, Joseph W.: *See—*
Shaw, Richard G.; Yeh, Ying L.; and Lewis, Joseph W.,3,503,903.

Lewis, Keith, to Lucas, Joseph, (Industries) Limited. Multi-circuit electrical switches. 3,535,478, 10-20-70, Cl. 200-67.

Lewis, Kenneth D.; Honeychurch, Robert W.; and Elsken, James C., to Dorr Oliver Incorporated. HY-G centrifuge. 3,539,096, 11-10-70, Cl. 233-14.

Lewis, Kenneth. Multiple element filter assembly, spray jet cleaning means. 3,532,220, 10-6-70, Cl. 210-334.

Lewis, Lloyd G., to Electronic Associates Inc. Control computer for a fractionation column. 3,502,852, 3-24-70, Cl. 235-151.12

Lewis, Lynn David: *See—*
Clement, Oliver R.; Lewis, Lynn David; and Thompson, James F.,3,545,284.

Lewis, Martin H. Toy cash register. 3,497,991, 3-3-70, Cl. 46-2.

Lewis, Merle R.: *See—*
Lohr, Raymond J.; and Lewis, Merle R.,3,548,801.

Lewis, Milburn, to Western Sawdust Products, Inc. Truck-body unloading apparatus. 3,498,482, 3-3-70, Cl. 214-83.22

Lewis, Morgan Wynne: *See—*
Andrews, Stuart Alexander; and Lewis, Morgan Wynne,3,504,538.

Lewis, Morton, to Swift & Company. Phosphonate amine polyol compounds and a process for preparing same. 3,498,969, 3-3-70, Cl. 260-211.

Lewis, Morton, to Swift & Company. Phosphonated esters. 3,534,073, 10-13-70, Cl. 260-403.

Lewis, Morton, to Swift & Company. Fatty amido amines. 3,539,601, 11-10-70, Cl. 260-403.

Lewis, Oliver N.; and Badali, Joseph A., to Olin Mathieson Chemical Corporation. Magazine with movable feed tips and guide fingers. 3,516,189, 6-23-70, Cl. 42-50.

Lewis, Peter Noel: *See—*
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Lewis, Philip W.; and Brom, Lawrence V., to Container Corporation of America. Display packaging structure. 3,543,919, 12-1-70, Cl. 206-45.14

Lewis, Ralph M.; and Stokeld, Richard W., Jr., to Texaco Inc. Limiting desorption in N-paraffin adsorption separation. 3,520,801, 7-21-70, Cl. 208-310.

Lewis, Raymond H., to Roberts Consolidated Industries, Inc. Application of wood veneer to a contoured base. 3,541,592, 11-17-70, Cl. 144-315.

Lewis, Richard H.: *See—*
Truax, David E.; Montagnino, Joseph C.; Lewis, Richard H.; and Sethna, Ben R.,3,537,946.

Lewis, Richard L., to Bendix Corporation, the. Hold-off valve. 3,526,437, 9-1-70, Cl. 303-6.

Lewis, Richard L.: *See—*
MacDuff, Stanley I.; and Lewis, Richard L.,3,532,027.

Lewis, Richard W.: *See—*
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Lewis, Roger G., to Collins Radio Company. JK flip-flop. 3,549,912, 12-22-70, Cl. 307-292.

Lewis, Roger N.: *See—*
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Lewis, Roger N.; and Wood, Donald W., to Argus Chemical Corporation. Unsymmetrical diacyl peroxides. 3,502,701, 3-24-70, Cl. 260-610.

Lewis, Sheldon N.: *See—*
Miller, George A.; Lewis, Sheldon N.; and Law, Andrew B.,3,517,022.

Lewis, Sheldon N.; Mc Nulty, Patrick J.; and Viste, Kenneth L., to Rohm & Haas Company. 3,5-Disubstituted benzamides. 3,551,484, 12-29-70, Cl. 260-558.

Lewis, Sheldon N.; and Miller, George A., to Rohm & Haas Company. Alkylene bis-iminodithiocarbonic acid chelates. 3,494,945, 2-10-70, Cl. 260-429.

Lewis, Sheldon N.; and Miller, George A., to Rohm & Haas Company. Onium salts of bis-dithiocarbamate transition metal chelates. 3,517,040, 6-23-70, Cl. 260-429.

Lewis, Sheldon N.; and Miller, George A., to Rohm & Haas Company. Certain acyl derivatives of oxo-and oxyisothiozoles. 3,544,580, 12-1-70, Cl. 260-302.

Lewis, Sheldon N.; Miller, Geroge A.; and Law, Andrew B., to Rohm & Haas Company. Certain 2-carbamoyl-3-isothiazolenes. 3,523,121, 8-4-70, Cl. 260-306.7

Lewis, Sheldon N.; and Swithenbank, Colin, to Rohm & Haas Company. Dinitro-isobornylphenyl esters. 3,538,146, 11-3-70, Cl. 260-479.
Swithenbank, Colin; Lewis, Sheldon N.; and Viste, Kenneth L.,3,518,304.

Lewis, Stafford I. Wall panel mounter. 3,524,239, 8-18-70, Cl. 29-200.

Lewis, Thomas Glenn, Jr.: *See—*
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Lewis, Thomas H., to Sierracin Corporation, The. External busbar system. 3,529,074, 9-15-70, Cl. 174-68.5

Lewis, Thomas W., II; and Henry, George R., to Dresser Industries, Inc. Basic refractory monolith. 3,521,870, 7-28-70, Cl. 263-46.

Lewis, Trousdale A.: *See—*
Betz, Nancy A.; Burrus, Walter R.; Lewis, Trousdale A.; Reynolds, Jay W.; Slaughter, Grimes G.; and Sullivan, Joseph G.,3,514,763.

Lewis, Victor Marcus: *See—*
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Lewis, William R.: *See—*
Pitts, Charles A.; and Lewis, William R.,3,525,394.

Lewis, William R., to Kiva Corporation. Well packer with slip and drag block assembly. 3,520,361, 7-14-70, Cl. 166-134.

Lewis, William R., to Dow Chemical Company, The, mesne. Float shoe apparatus. 3,527,299, 9-8-70, Cl. 166-184.

Lewis-Shepard Company: *See—*
Nilsen, Lornts B.; Bennett, Harold C.; and Russes, Gerald F., 3,493,137.

Lewis-Shephard Company: *See—*
Bennett, Harold C.; and Russes, Gerald F., 3,513,785.

Lewison, George Richard Grant, to National Research Development Corporation. Catamaran-type ships. 3,530,815, 9-29-70, Cl. 114-61.

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Liebert, Ralph C. Computer refrigeration system. 3,525,385, 8-25-70, Cl. 165-30.

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Liebl, Helmut J.: *See—*
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Liebl, Helmut J. Scanning ion microprobe with magnetic sector lens to purify the primary ion beam. 3,517,191, 6-23-70, Cl. 250-49.5

Liebl, Herbert: *See—*
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Liebman, Arno J. Disintegrating machine. 3,529,782, 9-22-70, Cl. 241-190.

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Liedtke, Kurt: *See—*
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Liedtke, Kurt, to Focke & Pfuhl. Method of and apparatus for weighing fiber material, particularly smoking tobacco. 3,522,854, 8-4-70, Cl. 177-119.

Liedtke, Kurt, to Hauni-Werke Korber & Co. K.G. Method and apparatus for transporting and filling containers with cigarettes or the like. 3,534,522, 10-20-70, Cl. 53-35.

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Lieffring, Gordon V., to Robo-Wash, Inc. Swivel apparatus. 3,517,694, 6-30-70, Cl. 137-560.

Lienert, Werner M., to Wurlitzer Company, The. Piano stringing method. 3,550,236, 12-29-70, Cl. 29-169.5

Lienhard, Otto E.; and Skal, Michal, to Engelhard Hanovia, Inc. Self-starting compact arc lamp. 3,529,209, 9-15-70, Cl. 315-327.

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Liepa, Arnold E., to Sperry Rand Corporation. Dummy wire selection scheme for data processing equipment memory systems. 3,533,083, 10-6-70, Cl. 340-172.5

Liepins, Hugo, to Sola Basic Industries, Inc. High pressure metallic vapor lamp circuit. 3,500,128, 3-10-70, Cl. 315-278.

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Lieptz, Nathan S., to Curtis Noll Corporation. Key cutting machine with preselected depth gauging. 3,496,636, 2-24-70, Cl. 30-131.

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Lieser, Ernst, to Eastman Kodak Company. Photographic camera comprising a flash synchronization device and the like. 3,494,269, 2-10-70, Cl. 95-11.5

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Liesse, Maurice Etienne. Portable gas apparatus with safety device. 3,511,585, 5-12-70, Cl. 431-88.

Lietz, Erich. Switching means for auxiliary power supply. 3,495,197, 2-10-70, Cl. 335-6.

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Lievense, Stanley James. Fishing fly with motion regulating scoop. 3,495,350, 2-17-70, Cl. 43-42.25

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Lifland, Leonard; and Moser-Vincekovic, Emil, to Kendall Company, The. Method for producing a bacteriostatic finish on synthetic fabrics. 3,498,829, 3-3-70, Cl. 117-138.5

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Lifshin, Eric: *See—*
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Light, Richard J., to Midland-Ross Corporation. Method of producing malleable iron. 3,511,721, 5-12-70, Cl. 148-138.

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Lightner, Gene E.; Debbrecht, Frederick J.; Muhlestein, Howard B.; and Seeds, Robert W. S., to Hewlett-Packard Company. Fluid flow control valve. 3,542,071, 11-24-70, Cl. 137-625.46

Lightner, Gene E.; and Muhlestein, Howard B., to Hewlett-Packard Company. Automatic fluid sampling system. 3,529,475, 9-22-70, Cl. 73-423.

Lightner, Gene E.; and Muhlestein, Howard B., to Hewlett-Packard Company. Automatic liquid sampler. 3,550,453, 12-29-70, Cl. 73-422.

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Lightwood, Raymond; and Sutherland, Alistair, to University of Birmingham, The, and Lucas, Joseph, (Industries) Limited. Method of making an artificial artery of wound silicone rubber thread. 3,490,975, 1-20-70, Cl. 156-167.

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Ligon, Elmer R.; and Reed, Norman D., to Dickey, W. S., Clay Manufacturing Company. Method and apparatus for testing and handling clay pipe. 3,500,680, 3-17-70, Cl. 73-102.

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Kovacs, Roy F.; Lang, David L.; and Ligon, James T.,3,489,367.

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Lildal, Jakob Jakobsen. Maneuvering mechanism for the outlet cover of a dry-melter. 3,540,618, 11-17-70, Cl. 220-36.

Liles, Barry J., to General Instrument Corporation. Oxide-type varactor with increased capacitance range. 3,508,123, 4-21-70, Cl. 317-234.

Liles, Clarence E. White Motor Corporation Pump unloading valve. 3,522,999, 8-4-70, Cl. 417-282.

Liles, Clarence E., to White Motor Corporation. Hydraulically actuated free piston air compressor. 3,544,238, 12-1-70, Cl. 417-397.

Liles, George N., to Burroughs Corporation. Mechanism for connecting a rotatable printing head to a character selection device. 3,493,090, 2-3-70, Cl. 197-16.

Liles, George N., to Burrough Corporation. Low power operated clutch latching mechanism. 3,498,428, 3-3-70, Cl. 192-28.

Lilien, Benjamin. Food portioning machine. 3,504,639, 4-7-70, Cl. 107-15.

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Liljequist, Jon L. Tilting timers. 3,533,229, 10-13-70, Cl. 58-144.

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Lillestrand, Robert L.; Kane, Lawrence D.; and Vannelli, Bruce D., to Control Data Corporation. Star recognition apparatus with an optical scanning disc. 3,539,814, 11-10-70, Cl. 250-203.

Lilley, David L., Jr. Fish lure. 3,528,189, 9-15-70, Cl. 43-42.33

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Lillibridge, Reba M. Therapeutic creeping device. 3,532,356, 10-6-70, Cl. 280-87.02

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Lillund, Nils A. Suction arc bag holder for automatic bread bagger. 3,545,175, 12-8-70, Cl. 53-386.

Lilly, Arnys Clifton, Jr.; and Gentry, Elwood Maurice, to Morris, Philip, Incorporated. Electrical thermometer. 3,548,661, 12-22-70, Cl. 73-362.

Lilly, Eli, and Company: *See—*
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Lilly, James L., to General Electric Company. Quick release device with automatic reset. 3,520,223, 7-14-70, Cl. 85-7.

Lilly, Mason M., to Brown, Harold, Company. Control apparatus for use in distribution systems. 3,491,784, 1-27-70, Cl. 137-81.5

Liloia, Gerard J., Jr.: *See—*
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Limage, Jean-Francois G. A., to Freres, Gay. Clasp primarily for bracelets or the like. 3,537,154, 11-3-70, Cl. 24-239.

Limandri, Francis V., to United States of America, Army. Automatic shut-off closed circuit coupling. 3,513,887, 5-26-70, Cl. 141-207.

Limbach, Anthony P., to Process Design, Inc. Plastic flow isolator. 3,521,491, 7-21-70, Cl. 73-395.

Limbacher, Howard R., to Brundage Company, The. Package of blower units. 3,495,705, 2-17-70, Cl. 206-65.

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Limberg, Allen Le Roy, to RCA Corporation. Electrical circuit for providing substantially constant current. 3,534,245, 10-13-70, Cl. 323-4.

Limberg, Allen Le Roy, to RCA Corporation. High current transistor amplifier stage operable with low current biasing. 3,534,279, 10-13-70, Cl. 330-22.

Limberg, Allen Le Roy, to RCA Corporation. D.C. restoration circuit with arc-over protection. 3,535,436, 10-20-70, Cl. 178-5.4

Limberger, Walter, to Lumoprint Zindler KG. Predetermined stop device for a revolving member. 3,495,693, 2-17-70, Cl. 192-148.

Limberger, Walter, to Lumoprint Zindler KG. Silver salt diffusion transfer method. 3,510,301, 5-5-70, Cl. 96-29.

Limberger, Walter, to Lumoprint Zindler KG. Silver salt diffusion apparatus for carrying out the transfer process. 3,516,344, 6-23-70, Cl. 95-89.

Limberger, Walter, to Lumoprint Zindler KG. Developing device for document copying apparatus. 3,537,377, 11-3-70, Cl. 95-89.

Limberger, Walter, to Lumoprint Zindler KG. Apparatus for drawing in templates into a processing device, more particularly for copying machines and the like. 3,545,743, 12-8-70, Cl. 271-53.

Limberger, Walter, to Lumoprint Zindler KG. Apparatus for making copies. 3,545,856, 12-8-70, Cl. 355-51.

Limberger, Walter; Opravil, Egon; and Cranskens, George, to Lumoprint Zindler KG. Document and book scanning copying apparatus. 3,510,218, 5-5-70, Cl. 355-51.

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Limbert, Jack L.; Proctor, Harry G.; and Poe, David T., to General Motors Corporation. Battery paste expander material. 3,523,041, 8-4-70, Cl. 136-26.

Limnios, Gus; and Jeffee, Saul. Apparatus and method for printing from pre-print film. 3,492,071, 1-27-70, Cl. 355-83.

Limon, Jose P., to Kowalka, Harold H. Monitoring device for electrical loads. 3,521,264, 7-21-70, Cl. 340-253.

Limoni, Uri, to Blazer Corporation. Nozzle apparatus. 3,519,209, 7-7-70, Cl. 239-468.

Limoni, Uri, to Blazer Corporation. Computer environment conditioning apparatus. 3,534,810, 10-20-70, Cl. 165-47.

Limpach, Paul D.: *See—*
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Lin, Chao-Han, to National Cash Register Company, The. Indole- and carbazole-substituted phthalides. 3,491,111, 1-20-70, Cl. 260-315.

Lin, Chao-Han, to National Cash Register Company, The. 3-(Phenyl)3-heterocyclic-substituted)-phthalides. 3,491,112, 1-20-70, Cl. 260-315.

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Lin, Hung Chang, to Westinghouse Electric Corporation. Amplifier apparatus including field effect and bipolar transistors suitable for integration. 3,504,293, 3-31-70, Cl. 330-35.

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Lin, Stanley C. F.: *See—*
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Linch, Richard E., to Western Industries, Inc. Gas torch. 3,512,912, 5-19-70, Cl. 431-344.

Lincks, Hans; and Muller, Hans, to Entwicklungsring Sud GmbH. Adjustable rotary pump with pressure relief. 3,527,552, 9-8-70, Cl. 418-24.

Lincoln Electric Company, The: *See—*
Buss, Ralph C., 3,488,469.
Carroll, John E.; and Golonka, Kenneth Anthony, 3,505,587.
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Lincoln, Frank H., Jr.: *See—*
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Lincoln, Frank H.; Schneider, William P.; and Spero, George B., to Upjohn Company, The. 6α-Fluoro-16α-methyl derivatives of the pregnane series. 3,499,016, 3-3-70, Cl. 260-397.45

Lincoln, James David; and Wasmund, John F., to Whittaker Corporation. Low temperature curing nylon-epoxy-phenolic adhesive. 3,496,248, 2-17-70, Cl. 260-831.

Lincoln, John D., to Continental Can Company, Inc. Apparatus for laminating continuous honeycomb and aluminum facings or skins. 3,490,977, 1-20-70, Cl. 156-685.

Lincoln Laboratories, Inc.: *See—*
Larson, Roger R., 3,535,068.
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Lincoln, Lewis, L.: *See—*
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Lincoln, Lewis L.; and Heseltine, Donald W., to Eastman Kodak Company. Direct positive silver halide emulsions containing carbocyanine dyes having a nitro-substituted 3H- indole nucleus. 3,501,311, 3-17-70, Cl. 96-106.

Lincoln Manufacturing Company, Inc.: *See—*
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Rhoads, Delmar D.; and MacKay, Robert H., 3,516,485.

Lincoln, Seamon A.: *See—*
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Lincoln Tool and Manufacturing Company: *See—*
Peter, Robert W., 3,539,121.
Peters, Robert W., 3,524,600.
Peters, Robert, W., 3,536,270.

Lincoln Valley Minerals Incorporated: *See—*
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Lind, Charles J., to Allied Chemical Corporation. Process for preparing dialkyl terephthalates. 3,541,136, 11-17-70, Cl. 260-475.

Lind, Hans V.: *See—*
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Lind, James N., to North American Rockwell Corporation. Microwave transmission line. 3,519,962, 7-7-70, Cl. 333-12.

Lind, James N.; and Meyer, William E., to North American Rockwell Corporation. Broadband microwave parametric amplifier. 3,501,706, 3-17-70, Cl. 330-4.9

Lind, James W.: *See—*
Barnard, John D.; Gaito, Carl C.; Giedd, Gary R.; Greene, Thomas G.; Lind, James W.; Perkins, Merlyn H.; and Proes, Charles M.,3,546,582.

Lind, Lars H. Apparatus for detecting the presence of an ionizable fluid. 3,493,950, 2-3-70, Cl. 340-235.

Lind, Laurel Raymond, to Magnavox Company, The. Balanced FM detector with variable resistance loads. 3,518,561, 6-30-70, Cl. 329-130.

Lind, Laurel R., to Magnavox Company, The. Variable center frequency filter for frequency modulation receiver. 3,541,451, 11-17-70, Cl. 325-346.

Lind, Nils S., to Kershaw Manufacturing Company, Incorporated. Pressure compensated control valve. 3,532,119, 10-6-70, Cl. 137-596.

Lind, Sven Torsten: *See—*
Sundstrom, Erik Wilhelm; and Lind, Sven Torsten,3,513,315.

Linda, Frank R.; and Leiter, Leigh D., to International Paper Company. Apparatus for applying handles to containers. 3,525,137, 8-25-70, Cl. 29-208.

Lindahl, Bo Oscar; and Lamme, Valentin, to SAAB Aktiebolag. Determining cleanness of air in a controlled environment. 3,526,461, 9-1-70, Cl. 356-38.

Lindahl, John R.: *See—*
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Lindau, Eric S. Slitter and cutter apparatus. 3,494,232, 2-10-70, Cl. 83-100.

Lindau, Eric S. Process for recovery of silver from film. 3,510,413, 5-5-70, Cl. 204-109.

Lindberg, Allan W., to Emerson Electric Co. Motor regulating system. 3,539,892, 11-10-70, Cl. 318-227.

Lindberg, Bjorn Edvin; and Nordberg, Lars Ture Vilhelm. Device for packaging one or more containers, for instance for clinical samples, and at least one appurtenant information card or the like. 3,515,268, 6-2-70, Cl. 206-47.

Lindberg, Erik Akel Sigvard, to Uddeholms Aktiebolag. Method of getting rid of malodorous air and water pollutants from alkaline pulp cooking. 3,520,772, 7-14-70, Cl. 162-51.

Lindberg, John E. System for detecting structural failure. 3,509,942, 5-5-70, Cl. 169-2.

Lindberg, John E. Critical-temperature sensor of the continuous type. 3,546,689, 12-8-70, Cl. 340-227.

Lindblad, Frederick W., to TRW Inc. Core drill. 3,494,348, 2-10-70, Cl. 125-20.

Lindblad, Frederick W. Ladder for boat dock, seawall, or the like. 3,503,467, 3-31-70, Cl. 182-97.

Lindblad, Oskar Lennart. Adjustment mechanism for the lengthwise adjustment of the safety belt of vehicles especially motor vehicles. 3,534,190, 10-13-70, Cl. 200-61.58

Lindblom, Karl Thore, to Ostbergs Fabriks AB. Hydraulic control device. 3,504,595, 4-7-70, Cl. 91-414.

Lindbom, Karl Bertil, to Aktiebolaget Bofors. Vehicle having four wheels steerable about associated vertical steering axes. 3,532,178, 10-6-70, Cl. 180-79.2

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Becker, Rudolf, 3,500,651.
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Linde, Hans, to Berthold, H., Messinglinienfabrik und Schriftgieserei A.G. System for providing different magnification ratios in photographic composing apparatus. 3,507,576, 4-21-70, Cl. 355-57.

Linde, Hermann; and Linde, Gerhard, to Linde Aktiengesellschaft. Evaporation of liquid natural gas with an intermediate cycle for condensing desalinized water vapor. 3,535,210, 10-20-70, Cl. 203-11.

Lindeboom, Herman, to Sealol, Inc. High pressure fluid seal with controlled leakage. 3,495,841, 2-17-70, Cl. 277-27.

Lindeboom, Herman, to Sealol, Inc. High pressure fluid seal with biasing action. 3,511,510, 5-12-70, Cl. 277-27.

Lindecker, Joseph B.: *See—*
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Lindell, Edvin Svante: *See—*
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Lindeman, Richard J., to Motorola, Inc. Color television tube with shadow mask assembly provided with shield for reducing X-ray radiation and the effect of stray magnetic fields. 3,549,932, 12-22-70, Cl. 313-85.

Lindemann, Dennis E.: *See—*
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Lindemann, Dennis E., to Clark Equipment Company, mesne. Foldable carriage for earth working implement. 3,548,954, 12-22-70, Cl. 172-311.

Lindemann, Eckhard Dirk, to Hell, Rudolf, Dr., Kommanditgesellschaft. Method of organizing the core memory in electronic phototype setters operating by rastering. 3,548,725, 12-22-70, Cl. 95-4.5

Lindemann, Hans. Machine tool with rotary cutter head and feeding mechanism therefor. 3,528,327, 9-15-70, Cl. 82-20.

Lindemann, Howard C.; and Hube, Arthur B., to Lindly & Company, Inc. Variable control means. 3,494,564, 2-10-70, Cl. 242-45.

Lindemann, Martin K., to Air Reduction Company, Incorporated, mesne. Water soluble modified polyvinyl alcohol films. 3,505,303, 4-7-70, Cl. 260-91.3

Lindemann, Martin K.; and Volpe, Rocco P., to Cumberland Chemical Corporation, mesne. Bonded nonwoven fabrics. 3,498,875, 3-3-70, Cl. 161-170.

Lindemann, Martin K.; and Volpe, Rocco P., to Air Reduction Company, Incorporated, mesne. Nonwoven fabric product and the like and preparation thereof. 3,526,538, 9-1-70, Cl. 117-140.

Lindemann, Martin K.; and Volpe, Rocco P., to Air Reduction Company, Incorporated. Coating of woven fabrics and the like. 3,526,540, 9-1-70, Cl. 117-161.

Lindemann Maschinenfabrik G.m.b.H.: *See—*
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Lindemann, Robert E.: *See—*
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Linden, Gosta R., to Miehle-Goss-Dexter, Incorporated. Signature assembling apparatus. 3,510,119, 5-5-70, Cl. 270-54.

Linden, Gosta R., to Miehle-Goss-Dexter Incorporated. Wire stitching apparatus. 3,514,027, 5-26-70, Cl. 227-81.

Linden, Gosta R., to North American Rockwell Corporation, mesne. Signature handling apparatus. 3,544,097, 12-1-70, Cl. 270-54.

Linden, Henry R.: *See—*
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Lindenthal, James R.; and Winn, Richard H., to Corning Glass Works. Apparatus for water purification by ion exchange. 3,497,069, 2-24-70, Cl. 210-282.

Lindenthal, John W.: *See—*
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Linder, Donald L., to Motorola, Inc. Crystal discriminator with unsymmetrical drive. 3,512,095, 5-12-70, Cl. 329-117.

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Weil, Edward D.; Dorfman, Edwin; and Linder, Jerome,3,515,537.

Linder, Kenneth C., to Scam Instrument Corporation, The. Electronic annunciator circuit. 3,525,988, 8-25-70, Cl. 340-213.

Linder, Seymour M.: *See—*
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Linder, William H.: *See—*
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Lindesmith, Harold R.; Sulecki, Richard P.; and Tuck, Charles R. Ladder constructions. 3,528,525, 9-15-70, Cl. 182-228.

Lindesmith, Harold R.; Sulecki, Richard P.; Tuck, Charles R.; and Werner, Richard L., to Werner, R. D., Co., Inc. Ladder constructions. 3,500,956, 3-17-70, Cl. 182-228.

Lindesmith, Harold R.; Sulecki, Richard P.; Tuck, Charles R.; and Werner, Richard L., to Werner, R. D., Co., Inc. Method of joining a ladder rung to a ladder rail. 3,545,072, 12-8-70, Cl. 29-516.

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Lindgren, Erik A. Utility room. 3,498,011, 3-3-70, Cl. 52-31.

Lindgren, James R.: *See—*
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Lindgren, John C.: *See—*
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Lindgren, Karl-Erik; Andersson, Kawe K. G.; and Johansson, Harry G. R., to Aktiebolaget Gullhogens Bruk. Binding agent for plaster and/or mortar, and mortar mixtures produced therefrom. 3,489,582, 1-13-70, Cl. 106-97.

Lindgren, Kenneth F., to Allis-Chalmers Manufacturing Company. Forward tilt protection system for lift truck. 3,494,494, 2-10-70, Cl. 214-673.

Lindgren, Owe; Kjellander, Gunnar; and Skoog, Lennart, to Aktiebolaget Gylling & Co. Hybrid circuit with electron valve separating element. 3,513,259, 5-19-70, Cl. 179-1.

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Lindh, Torsten Lennartson: *See—*
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Lindholm, Bengt; and Mildh, Gosta, to Aktiebolaget Svenska Flaktfabriken. Emitting electrode assembly for electrostatic precipitators. 3,501,898, 3-24-70, Cl. 55-147.

Lindholm, Frank J.: *See—*
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Lindin, Gregory E., to Polaroid Corporation. Printing of lenticular films. 3,504,970, 4-7-70, Cl. 355-33.

Lindler, James Monroe, to Columbia Products Company. Vaulting pole with helical winding having spaced apart convolutions. 3,491,999, 1-27-70, Cl. 272-59.

Lindley, Bryan Charles, to Parson, C. A., & Company Limited. Magnetohydrodynamic apparatus. 3,524,086, 8-11-70, Cl. 310-11.

Lindley, Charles Alexander, to Marquardt Corporation, The. Self-consuming ramjet vehicle. 3,504,631, 4-7-70, Cl. 102-49.8

Lindley, Donald C., to Cellu-Craft Products Corporation. Plastic bag handle applying apparatus including handle web severing and heat sealing means. 3,511,735, 5-12-70, Cl. 156-516.

Lindley, John, to Imperial Chemical Industries Limited. Crystallisation process. 3,531,944, 10-6-70, Cl. 62-58.

Lindley, William L. Auxiliary safety wheel for tubeless tires. 3,519,053, 7-7-70, Cl. 152-158.

Lindly & Company, Inc.: *See—*
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Lindly, Horace Bishop: *See—*
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Lindman, William Edward, to Western Mechanical, Inc. Water purification apparatus. 3,521,752, 7-28-70, Cl. 210-96.

Lindman, William Edward; and Adams, Mark F., to Western Mechanical, Inc. Water purification method. 3,522,173, 7-28-70, Cl. 210-49.

Lindmark, Karl L., to Chemetron Corporation. Method of grinding welded rail. 3,509,667, 5-5-70, Cl. 51-328.

Lindmark, Karl Signar. Method of joining logs and the resulting structure with a clamp used therein. 3,517,471, 6-30-70, Cl. 52-233.

Lindmark, Per Samme Valentin. Devices in sheet bending machines. 3,490,260, 1-20-70, Cl. 72-169.

Lindmayer, Joseph, to Sprague Electric Company. Radiation resistant semiconductive device. 3,547,717, 12-15-70, Cl. 148-187.

Lindner, Helmut; Hoyer, Ernst; and Schmidt, Heinz, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Water-insoluble phenyl-azo-phenyl dyestuffs. 3,549,613, 12-22-70, Cl. 260-207.

Lindner, Paul, to Witco Chemical Corporation. Emulsifier compositions based on mixtures of amine salts of linear alkyl aryl sulfonic acids. 3,539,522, 11-10-70, Cl. 252-153.

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Lindquist, Alberta M. Self-locking toothbrush holder. 3,531,072, 9-29-70, Cl. 248-113.

Lindquist, Arne Herman, to Nydqvist & Holm Aktiebolag. Stay ring for water turbines and the like. 3,512,899, 5-19-70, Cl. 415-126.

Lindquist, Arne Herman, to Nydqvist & Holm Aktiebolag. Method for manufacturing large tubular shafts. 3,542,991, 11-24-70, Cl. 219-61.

Lindquist, Arne Herman; and Munkstrand, Nils Eric, to Nydqvist & Holm Aktiebolag. Control device for wicket gates of a turbine installation. 3,536,431, 10-27-70, Cl. 251-26.

Lindquist, Arwin B.; Pricer, Wilbur D.; and Seeber, Robert R., to International Business Machines Corporation. Associative memory system which can be addressed associatively or conventionally. 3,518,631, 6-30-70, Cl. 340-172.5

Lindquist, Claude A., Jr., to Pfizer Inc. Dielectric films. 3,551,197, 12-29-70, Cl. 117-217.

Lindquist, Clifford W., to United States Steel Corporation. Method of lining cylinders. 3,551,188, 12-29-70, Cl. 117-97.

Lindquist, Everet F., to Measurement Research Center, Inc. Document feeding mechanism. 3,506,258, 4-14-70, Cl. 271-41.

Lindquist, Everet F.; and Carsner, George E. Data sensing system for a document scanner. 3,502,850, 3-24-70, Cl. 235-61.11

Lindquist, Larry B., to Dale Electronics, Inc. Potentiometer. 3,517,368, 6-23-70, Cl. 338-180.

Lindquist, Robert H.; and Mulaskey, Bernard F., to Chevron Research Company. Metal-oxide coated ferrimagnetic particles. 3,535,245, 10-20-70, Cl. 252-62.58

Lindquist, Robert M. L. Method and apparatus for moving fluids. 3,506,378, 4-14-70, Cl. 417-53.

Lindquist, Stanley F., to Smith, A. O., Corporation. Planar body mount surface in box section frame element. 3,509,679, 5-5-70, Cl. 52-731.

Lindroth, Roger S.Apparatus for switching off a vehicle's headlights and taillights from outside the vehicle. 3,501,645, 3-17-70, Cl. 307-10.

Lindroth, Sidney: *See—*
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Lindsay, David B. Aircraft engine mounting system. 3,502,287, 3-24-70, Cl. 244-54.

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Lindsay, Jacque K.: *See—*
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Lindsay, James B. Television repair device. 3,508,746, 4-28-70, Cl. 269-17.

Lindsay, James B.; Engel, William T.; and Brent, George D., to Kahle Engineering Company. Automatic stud welder. 3,509,309, 4-28-70, Cl. 219-95.

Lindsay, Kenneth L., to Ethyl Corporation. Preparation of alkali metal hydrides. 3,505,036, 4-7-70, Cl. 23-365.

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Abernathy, Thomas William; and Lindsay, Thomas F.,3,535,903.

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Lindsey, Gordon. Herbicidal composition. 3,515,535, 6-2-70, Cl. 71-65.

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Lindsey, James M., to Sperry Sun Well Surveying Company. Borehole tool. 3,546,478, 12-8-70, Cl. 307-116.

Lindsey, Jefferson F., III; and Nason, Gareth H., to United States of America, National Aeronautics and Space Administration. Flexible blade antenna. 3,509,570, 4-28-70, Cl. 343-718.

Lindsey, John J.; and Lindsey, William R. Nut-kernel dicing machine. 3,550,658, 12-29-70, Cl. 146-78.

Lindsey, Joseph W., to I-T-E Imperial Corporation. Tube end mounted sleeve. 3,534,988, 10-20-70, Cl. 285-305.

Lindsey, L. E. High tension insulator mounting bracket assembly with detachable appearance cover. 3,522,363, 7-28-70, Cl. 174-45.

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Lindstad, Thorvald August, to Arenco Aktiebolag. Device in cigar making machines for removing tobacco waste when cutting wrappers or binders from a strip of tobacco. 3,513,737, 5-26-70, Cl. 83-100.

Lindstedt, Ake, to Allmanna Svenska Elektriska Aktiebolaget. Rotor for electric machine with vertical shaft. 3,529,193, 9-15-70, Cl. 310-264.

Lindstedt, Kurt; and Kirchhoff, Kurt, to ISCO Optische Werke G.m.b.H. Anamorphotic attachment. 3,511,557, 5-12-70, Cl. 350-181.

Lindstedt, Kurt; and Kirchhoff, Kurt, to Isco Optische Werke GmbH. Anamorphotic objective. 3,517,984, 6-30-70, Cl. 350-181.

Lindstrand, Robert O., to Keystone Consolidated Industries, Inc. Thread-forming screw. 3,530,760, 9-29-70, Cl. 85-46.

Lindstrom, Carl, Gesellschaft m.b.H.: *See—*
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Lindstrom, Edgar K., to Viking Manufacturing Company, Inc. Mobile feed grinding and mixing and distributing apparatus. 3,501,101, 3-17-70, Cl. 241-98.

Lindstrom, Evert P. Safety attachment means for spectacle lenses. 3,542,459, 11-24-70, Cl. 351-47.

Lindstrom, Karl Hugo: *See—*
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Lindstrom, Olle, to Allmanna Svenska Elektriska Aktiebolaget. Fuel cell device. 3,492,166, 1-27-70, Cl. 136-86.

Lindstrom, Olle, to Allmanna Svenska Elektriska Aktiebolaget. Fuel cell battery. 3,522,100, 7-28-70, Cl. 136-86.

Lindstrom, Robert J. Disposable mop and holder for mop frame. 3,528,120, 9-15-70, Cl. 15-228.

Lindstrom, Robert T., to International Business Machines Corporation. Steady state copper etching system with ammonium persulfate. 3,505,135, 4-7-70, Cl. 156-19.

Lindstrom, Sven-Olof: *See—*
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Linert, Jan D. Vandalproof outdoor barbecue. 3,492,985, 2-3-70, Cl. 126-25.

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Linfield, Wayne S., to AAI Corporation. Power supply monitor. 3,543,093, 11-24-70, Cl. 317-31.

Ling, Frederick R.: *See—*
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Ling, Shen: *See—*
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Petersen, Donald H.; and Schwemer, Warren C., 3,520,977.

Lingen, Dieter; and Rum, Klaus, to Deutsche Edelstahlwerke Aktiengesellschaft. Wire processing machines. 3,500,877, 3-17-70, Cl. 140-2.

Lingenbrink, Hermann E. F. C., to Thomas & Betts Co., The. Colletype crimping tool. 3,491,577, 1-27-70, Cl. 72-402.

Lingens, Paul: *See—*
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Linger, Bruno: *See—*
Rubin, Jacob C.; Linger, Bruno; and Mattson, Edward J.,3,489,146.

Lingg, Gerhard, to Rudolf Geisel Maschinenfabrik. Load handling devices. 3,520,396, 7-14-70, Cl. 198-77.

Lingle, John T., to United States of America, Army. Current feedback oscillator with initial overdrive. 3,493,895, 2-3-70, Cl. 331-113.

Lingle, John T., to Honeywell Inc. High efficiency voltage regulating circuit. 3,514,692, 5-26-70, Cl. 323-22.

Linhart, Jiri George, to European Atomic Energy Community (Euratom). Magnetic piston. 3,517,228, 6-23-70, Cl. 310-11.

Linier, Gerhard: *See—*
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Link, Anton, to Entwicklungsring Sud G.m.b.H. Bearing for an aircraft wing having adjustable sweepback. 3,512,847, 5-19-70, Cl. 308-2.

Link, Edwin A., to RTE Corporation. Capsulated electrical apparatus. 3,530,417, 9-22-70, Cl. 336-96.

Link, Helmut, to Index-Werke KG Hohn & Tessky. Programming apparatus for machine tools or the like. 3,533,306, 10-13-70, Cl. 74-675.

Link, Kenneth N. Garbage can holding rack. 3,494,478, 2-10-70, Cl. 211-71.

Link, Martin, to Johnson & Johnson. Package. 3,530,980, 9-29-70, Cl. 206-52.

Linke, Ernest A., to Breeze Corporation, Inc. Split rotary electric transformer. 3,492,618, 1-27-70, Cl. 336-120.

Linke, Horst: *See—*
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Linkfield, Chester G., to Omark Industries, Inc. Saw chain driving apparatus. 3,519,037, 7-7-70, Cl. 143-32.

Linkous, Guy F.; and Dick, Paul J., to Teledyne, Inc., mesne. Deployable radioisotopic thermoelectric generator. 3,530,009, 9-22-70, Cl. 136-202.

Linkow, Leonard I.; and Edelman, Alfred E. Intra-osseous pins and posts and their use and techniques thereof. 3,499,222, 3-10-70, Cl. 32-2.

Linley, Francis M., Jr.: *See—*
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Linley, Philip R.; and Linley, Francis M., Jr., to Universal Thread Grinding Company. Apparatus for comparing with a length standard the spacing of test points in a workpiece. 3,504,441, 4-7-70, Cl. 33-174.

Linn, Carl H. Spray gun assembly. 3,491,917, 1-27-70, Cl. 222-82.

Linn, David Harold: *See—*
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Weiss, Charles M.; and Linn, David Harold,3,518,763.

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Linn, Wallace L., to Mallory, P. R., & Co., Inc. Magnetic unidirectional system for a motor. 3,525,888, 8-25-70, Cl. 310-41.

Linn, Wallace L., to Mallory, P. R., & Co., Inc. One-way directional means for synchronous motors. 3,539,844, 11-10-70, Cl. 310-41.

Linneborn, Walter, to Singer Company, The. Process and apparatus for the electrostatic flocking of textile material. 3,543,721, 12-1-70, Cl. 118-638.

Linneborn, Walter, to Singer Company, The, mesne. Electrostatically coating the outer surface of hollow objects with flock. 3,547,078, 12-15-70, Cl. 118-638.

Linneborn, Walter, to Singer Company, The, mesne. Electrostatically coating the outer surface of hollow objects with flock. 3,547,672, 12-15-70, Cl. 117-17.

Linneken, Hans, to Gutehoffnungshutte Sterkrade Aktiengesellschaft. Screw machine. 3,549,280, 12-22-70, Cl. 418-21.

Linnenbom, Victor J.; and Swinnerton, John W., to United States of America, Navy. Measurement of trace amounts of carbon monoxide in water solution. 3,545,929, 12-8-70, Cl. 23-230.

Linnenkamp, Ben R., to Construction Machinery Company. Revolution counter for a concrete mixing truck. 3,548,165, 12-15-70, Cl. 235-92.

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Linning, George F., to Amerline Corporation. Endless tape cartridge. 3,489,362, 1-13-70, Cl. 242-55.19

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Starck, Leon, 3,491,874.

Lins, Raymond G., to Sperry Rand Corporation. Evaporant material control for vapor deposition apparatus. 3,488,214, 1-6-70, Cl. 117-107.

Linsalato, Oronzo L., to Accessory Products Co. Discharge valve. 3,491,783, 1-27-70, Cl. 137-68.

Linse, La Vern L., to Minnesota Mining and Manufacturing Company. Copier. 3,506,354, 4-14-70, Cl. 355-106.

Linsell, Russell; and Parsley, George, to Esso Research and Engineering Company. Apparatus for determining contamination of flowing liquids in a pipe. 3,538,748, 11-10-70, Cl. 73-61.1

Linsey, Jos. M., Corporation: *See—*
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Linsley, Clarence R.: *See—*
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Linsley, Clarence R., to Singer-General Precision, Inc. Dynamic magnetic memory transducer positioning apparatus. 3,491,350, 1-20-70, Cl. 340-174.1

Linsley, Clarence R.; and Pinczower, Henry J., to Singer-General Precision, Inc. Transducer assembly with tandem bearing pads. 3,528,067, 9-8-70, Cl. 340-174.1

Linsley, Douglas F. Rudder attachment for outboard marine drives. 3,516,378, 6-23-70, Cl. 114-165.

Linstead, Lorraine A. Sweater drier. 3,487,557, 1-6-70, Cl. 34-151.

Linstedt, Hans, to Bosch, Robert, G.m.b.H. Integrated circuit voltage regulating arrangement. 3,539,907, 11-10-70, Cl. 322-28.

L'Institut de Microbiologie et d'Hygiene de l'Universite de Montreal:*See*—
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Linstromberg, William J., to Whirlpool Corporation. Sensing arm mechaniam for ice maker. 3,545,217, 12-8-70, Cl. 62-137.

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Linton and Hirst Limited: *See*—
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Linton, Robert W.: *See*—
Sams, Robert H.; and Linton, Robert W.,3,526,530.

Linton, Thomas W., to Snyder Trailer Company, The. Trailer construction. 3,494,655, 2-10-70, Cl. 296-23.

Linz, Leo, to Industriewerk Schaeffler OHG. Roller bearings with cylindrical rollers. 3,502,378, 3-24-70, Cl. 308-213.

Linz, Leo: *See*—
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Liobis, Vytautas A., deceased (by Liobis, Aldona, legal representative); and Freedman, David, to New Brunswick Scientific Co., Inc. Freeze drying apparatus. 3,516,170, 6-23-70, Cl. 34-53.

Lion Fat & Oil Co., Ltd.: *See*—
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Tomiyama, Shinichi; Mori, Akira; Nagayama, Masuzo; Takao, Masayasu; and Sekiguchi, Hitoshi, 3,544,475.

Lion, Kurt S., to Pfizer, Chas., & Co., Inc. Method and apparatus for detecting agglutination reactions. 3,520,609, 7-14-70, Cl. 356-39.

Lion Yushi Kabushiki Kaisha (Trade name: Lion Fat & Oil Co., Ltd.): *See*—
Nozawa, Akira; Saho, Tetsuichi; Marumo, Hideo; and Saito, Minoru, 3,522,620.

Lionikis, George: *See*—
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Lipanovich, Marko I.; and Cleveland, Garry J., to Lockheed Aircraft Corporation. Light sensitive detector and time-correlated generator. 3,492,657, 1-27-70, Cl. 340-172.5

Lipe, Bruce R.; and Schroeder, Earle E., to Allis-Chalmers Manufacturing Company. Pump motor seal system. 3,526,469, 9-1-70, Cl. 417-360.

Lipe-Rollway Corporation: *See*—
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Root, Robert S., 3,548,984.
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Lipfert, Donald E., to Scovill Manufacturing Company. Process of making and attaching snap fastener parts. 3,489,829, 1-13-70, Cl. 264-93.

Lipfert, Frederick W.: *See*—
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Lipha, Lyonnaise Industrielle Pharmaceutique: *See*—
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Lipien, Edwin W., to Western Electric Company, Incorporated. Station restriction circuit for private branch exchange. 3,534,176, 10-13-70, Cl. 179-27.

Lipinski, Johann, to Friedman, Alex., Kommandit-Gesellschaft. Process and apparatus for controlling the furrow-depth of a plough drawn by a traction-engine. 3,490,538, 1-20-70, Cl. 172-1.

Lipinski, Krzysztof: *See*—
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Lipke, Donald L., to Collins Radio Company. Frequency divider circuit. 3,546,597, 12-8-70, Cl. 328-46.

Lipkins, Morton S. Fabrication of optical tunnels. 3,536,558, 10-27-70, Cl. 156-296.

Lipman, Roger D. A., to Geigy Chemical Corporation. Adhesive compositions containing copolymers of alpha olefins having 11-20 carbon atoms and 4-20 carbon atoms and laminates formed therefrom. 3,542,717, 11-24-70, Cl. 260-27.

Lipnick, Richard: *See*—
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United States of America,National Aeronautics and Space Administration, Administrator, 3,493,677.

Lipowski, Stanley A.; and Christiansen, Arvid, to Diamond Shamrock Corporation. Cationic polyamide-epichlorohydrin resins. 3,535,288, 10-20-70, Cl. 260-78.

Lipp, Herbert; and Nordmann, Adolf, to Rheinmetall G.m.b.H. Magazine for guns built into armoured cupolas. 3,501,996, 3-24-70, Cl. 89-34.

Lipp, James: *See*—
Chang, David C.; and Lipp, James,3,512,865.

Lipp, Willi, to Rheinstahl Huttenwerke AG. Multi-head drilling machine with head changing means. 3,509,619, 5-5-70, Cl. 29-568.

Lipp, Xaver, to Reinhardt Maschinenbau GmbH. Method for connecting edges of sheet metal. 3,528,167, 9-15-70, Cl. 29-509.

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Lippert, Axel; Bottenbruch, Ludwig; Casper, Clemens; Court, Otto; and Vernaleken, Hugo, to Farbenfabriken Bayer Aktiengesellschaft. Apparatus for carrying out evaporations and reactions accompanied by the evolution gases. 3,550,669, 12-29-70, Cl. 159-6.

Lippert, Ralph C., to Phillips Petroleum Company. Method for manufacturing cast solid polyurethane propellants. 3,529,042, 9-15-70, Cl. 264-3.

Lippi, Dominic M., to Wood, A. R., Manufacturing Company. Combination feeder and waterer for hogs. 3,536,046, 10-27-70, Cl. 119-51.5

Lippincott, Richard L., to Whittaker Corporation. Electric power source with movable anode means. 3,536,535, 10-27-70, Cl. 136-86.

Lippitt, Raymond F., to Textron Inc. Corrugated fastener structure for use in fastener driving device. 3,507,384, 4-21-70, Cl. 206-56.

Lippke, Paul. Pneumatic conveyor for depositing sheets. 3,500,999, 3-17-70, Cl. 209-74.

Lippl, Wilhelm Konrad: *See*—
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Lippman, Aaron Harry, to Brainerd Manufacturing Co., Inc. Door lock. 3,537,739, 11-3-70, Cl. 292-2.

Lippman, Edward H., to Liquid Nitrogen Processing Corporation, meane. Polytetrafluoroethylene molding powder and process of preparing the same. 3,528,955, 9-15-70, Cl. 260-92.1

Lippman, Jordan H., to Harwood Electronics Co., Inc. Bracket for mounting a light on a camera. 3,527,437, 9-8-70, Cl. 248-205.

Lippmann, Jean Pierre: *See*—
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Lippmann, Seymour A.: *See*—
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Lippoldt, Richard F.; and Woods, Warren W., to Continental Oil Company. Method of making a coated agricultural mulch sheet. 3,511,694, 5-12-70, Cl. 117-105.3

Lippoldt, Richard F.; and Woods, Warren W., to Continental Oil Company. Mulch sheets and seed mats and method of making same. 3,516,196, 6-23-70, Cl. 47-56.

Lippe, Ben J., Jr., to Dow Chemical Company, The. Process for the fabrication of a cellulose hollow fiber separatory cell. 3,546,209, 12-8-70, Cl. 260-214.

Lippuner, Oskar, to Luwa AG. Pneumatic cleaning apparatus for looms. 3,491,801, 1-27-70, Cl. 139-1.

Lippuner, Oskar, to Herberlein & Co. A.G. Yarn temperature and humidity control. 3,508,343, 4-28-70, Cl. 34-156.

Lips, Theodoor Maria Albert. Tape guide for a recorder/reproducer. 3,507,437, 4-21-70, Cl. 226-196.

Lipscomb, Willis L. Adjustable lighting fixture hanger with wiring protection means. 3,512,743, 5-19-70, Cl. 248-324.

Lipscomb, Wyatt W. Device for developing football passing proficiency. 3,534,958, 10-20-70, Cl. 273-55.

Lipsett, Morley S., to Perkin-Elmer Corporation, The. High stability laser. 3,516,009, 6-2-70, Cl. 331-94.5

Lipsett, Solomon George, to Asbestos Corporation Limited. Process for improving the freeness of asbestos. 3,535,150, 10-20-70, Cl. 117-100.

Lipshutz, Marvin L.: *See*—
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Bickel, Gary W.; Ferrara, John J.; and Lipshutz, Marvin L.,3,528,030.

Lipski, Arthur Z. Taillight for a bicycle. 3,493,739, 2-3-70, Cl. 240-7.55

Lipski, Edward G., to Westinghouse Electric Corporation. Variable-stroke agitator for clothes washing machine. 3,492,839, 2-3-70, Cl. 68-134.

Lipski, Edward G., to Westinghouse Electric Corporation. Clothes washer structure. 3,529,449, 9-22-70, Cl. 68-134.

Lipson, Samuel: *See*—
Markus, Harold; and Lipson, Samuel,3,523,766.

Lipstein, Norman J., to General Electric Company. Honeycomb pressure reducing device. 3,494,705, 2-10-70, Cl. 415-180.

Lipstein, Norman J., to General Electric Company. Cooling arrangement for dynamoelectric machines. 3,514,647, 5-26-70, Cl. 310-60.

Lipton, Thomas J., Inc.: *See*—
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Liquid Nitrogen Processing Corporation: *See*—
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Lir, Erikh Viktorovich: *See*—
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Lira, Emil P.; and Freytag, Arthur H., to International Minerals & Chemical Corporation. Seed germination enhancement. 3,516,815, 6-23-70, Cl. 71-77.

Lis, Theodore M., to Kollsman Instrument Corporation. Electric switch assembly for printed circuit installations. 3,501,598, 3-17-70, Cl. 200-11.

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Lischer, Georg; and Gaus, Jakob, to Maschinenfabrik Moenus AG. Method of forming blanks in a swing arm cutting press. 3,508,459, 4-28-70, Cl. 83-23.

Lisega Rohrleitungszubehor G.m.b.H.: *See*—
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Lisk-Savory Corporation: *See*—
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Liska, Manfred; and Hubner, Klaus, to Siemens Aktiengesellschaft. Apparatus for supervising the current supplied to loads via antiparallel-connected thyristors. 3,548,289, 12-15-70, Cl. 323-9.

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Liskey, George W. Electronic automotive vibration tester. 3,498,115, 3-3-70, Cl. 73-71.2

Liss, Donald H., to Textron Inc. Hollow bearing ball. 3,510,183, 5-5-70, Cl. 308-188.

Liss, Jules; and Liss, Martin. Container having cooperative lid and handle. 3,490,640, 1-20-70, Cl. 220-36.

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Liss, Theodor Arthur; and Vinton, William Howells, to Du Pont de Nemours, E. I., and Company. Synthetic polyamide fiber dyed with copper complex of monoazo dyestuffs. 3,539,288, 11-10-70, Cl. 8-42.

Lissant, Kenneth J., to Petrolite Corporation. Thixotropic oil-in-water emulsion fuels. 3,490,237, 1-20-70, Cl. 60-217.

Lissant, Kenneth J., to Petrolite Corporation. Process of cleaning piping systems. 3,523,826, 8-11-70, Cl. 134-22.

Lissant, Kenneth J., to Petrolite Corporation. Essentially nonaqueous emulsions. 3,539,406, 11-10-70, Cl. 149-109.

Lissau, Frederic, to Kidde, Walter, & Company, Inc. Pressure energized seal. 3,531,132, 9-29-70, Cl. 277-115.

Lissner, Oskar: *See*—
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List, Ferdinand; and Alfs, Helmut, to Chemische Werke Huls Aktiengesellschaft. Recovery of terephthalic acid from methanolic mother liquor. 3,546,283, 12-8-70, Cl. 260-525.

List, Fredinand; and Alfs, Helmut, to Chemische Werke Huls Aktiengesellschaft. Purification of commercial terephthalic acid. 3,546,284, 12-8-70, Cl. 260-525.

List, Hans: *See*—
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List, Hans; and Zeiringer, Rudolf, said Zeiringer assor to said List. Piezoelectric pressure measuring instrument. 3,505,862, 4-14-70, Cl. 73-115.

List, Hans; Zeiringer, Rudolf; and Hatschek, Rudolf, said Zeiringer and Hatschek assor to said List. Piezo-electric transducer. 3,495,102, 2-10-70, Cl. 310-8.7

List, Harold A. Apparatus for stabilizing gagemeter control of rolling mills. 3,550,414, 12-29-70, Cl. 72-8.

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List, Karl-Hermann; and Noltner, Gerhard, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius and Bruning. Process for mechanically after-dehumidifying and further treating filter press cakes of pigment or dispersion dyes. 3,528,365, 9-15-70, Cl. 100-37.

Listening Incorporated: *See*—
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Lister, Brian, to British Petroleum Company Limited, The. Constant mass cell. 3,507,300, 4-21-70, Cl. 137-392.

Lister, Clive R. B. Method and means for generating acoustic pressure in flud medium. 3,522,862, 8-4-70, Cl. 181-0.5

Lister, Cyril Douglas. Intermittent lubricant spray device. 3,503,470, 3-31-70, Cl. 184-55.

Lister, George H., to Euclid Electric & Manufacturing Co., The. Electronic detection system. 3,510,677, 5-5-70, Cl. 307-116.

Listner, Gregory Julius, to Johnson & Johnson. Novel polypropylene having isotactic- randiotactic structure. 3,511,824, 5-12-70, Cl. 260-93.7

Listner, Gregory Julius, to Johnson & Johnson. Sterically rearranged polymers. 3,515,687, 6-2-70, Cl. 260-2.

Listner, Gregory Julius; and Sampson, Arthur James, to Johnson & Johnson. Single screw extruder. 3,496,603, 2-24-70, Cl. 18-12.

Listner, Gregory Julius; and Sampson, Arthur James, to Johnson & Johnson. Printing ink from randiopropylene. 3,547,870, 12-15-70, Cl. 260-32.6

Liston, John W.; Gee, Gordon E.; and Oliver, William K., to Federal Sign and Signal Corporation. System for speed indication utilizing digital distance and digital time measuring apparatus. 3,530,382, 9-22-70, Cl. 324-178.

Liston, Keith L.: *See*—
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Liston, Max D., to Smith Kline & French Laboratories. Spectrophotometer with plural dispersion using a single monochromator. 3,512,889, 5-19-70, Cl. 356-94.

Liston, Max D., to Liston-Fletcher, Inc. Therapeutic intermittent positive pressure respirator. 3,537,448, 11-3-70, Cl. 128-145.5

Liston, Thomas V., to Chevron Research Company. Silyl esters of terephthalic acid as corrosion inhibitors. 3,538,000, 11-3-70, Cl. 252-49.6

Liston, Thomas V., to Chevron Research Company. Wax-amine containing terpolymer compositions for aluminum coating. 3,538,032, 11-3-70, Cl. 260-28.5

Liston-Fletcher, Inc.: *See*—
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Lit, Harry B., to General Electric Company. Fuel cell units with thermally responsive reactant control. 3,496,022, 2-17-70, Cl. 136-86.

Litant, Irving, to United States of America, National Aeronautics and Space Administration. Method for detecting leaks in hermetically sealed containers. 3,548,636, 12-22-70, Cl. 73-40.7

Litant, Irving; and Scapicchio, Anthony J., to United States of America, National Aeronautics and Space Administration. Apparatus and method for separating a semiconductor wafer. 3,493,155, 2-3-70, Cl. 225-2.

Litera, Ladislav: *See*—
Petracek, Miloslav; Kabatek, Zdenek; Litera, Ladislav; Tvarazek, Zdenek; and Hajek, Frantisek,3,488,281.

Litherland, Albert E.; Alexander, Thomas K.; and Jeffs, Alan T., to Atomic Energy of Canada Limited. High energy gamma ray source. 3,520,819, 7-21-70, Cl. 252-301.1

Lithium Corporation: *See*—
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Burkert, George M.; and Ellestad, Reuben B., 3,523,751.
Eastham, Jerome F.; and Screttas, Constantinos G., 3,534,113.
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Litke, Alvin C., to Allied Chemical Corporation. Hydrocarbon soluble colorants. 3,494,714, 2-10-70, Cl. 8-6.

Litke, William: *See*—
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Litofsky, Barry, to Bell Telephone Laboratories, Incorporated. Videotelephone system for providing a visual display of call progress signals. 3,502,812, 3-24-70, Cl. 179-2.

Litovsky, Leonid Vsevolodovich: *See*—
Pikhtovnikov, Rostislav Vyacheslavovich; Gubsky, Alexei Alexeevich; Borisevich, Vladimir Karpovich; Kirichenko, Lidia Rostislavovna; Barsukov, Albert Petrovich; Plisko-Vinogradsky, Arkady Fedorovich; Shalygin, Vladimir Ivanovich; Repin, Georgy Arkadievich; Buzukov, Anatoly Anatolievich; Litovsky, Leonid Vsevolodovich; and Eliseev, Valery Ivanovich,3,518,860.

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Litt, Arthur A.; and Donaldson, Ralph F., said Donaldson assor to said Litt. Suction cup device. 3,514,065, 5-26-70, Cl. 248-363.
Litt, Donald D.; and Jaroff, David B., to Techmation Corporation. Delivery device for one-revolution cylinder cutter/creaser press. 3,550,934, 12-29-70, Cl. 271-68.
Litt, Donald D.: *See—*
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Lloyd, Norman Edward, to Standard Brands Incorporated. Ammonium phosphate derivatives of starch. 3,539,553, 11-10-70, Cl. 260-233.5

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Stern, Peter, 3,487,991.
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LoGiudice, Roberto C. Welder mask. 3,540,058, 11-17-70, Cl. 2-8.

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Logsdon, Duane D. Water heater stand and drain pan. 3,519,233, 7-7-70, Cl. 248-146.

Logsdon, Duane D. Pipe hanger. 3,523,668, 8-11-70, Cl. 248-59.

Logston, Charles F., Jr., to General Motors Corporation. Power supply fault detection system. 3,496,414, 2-17-70, Cl. 317-13.

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Long, Bernard, to Libbey-Owens-Ford Company. Apparatus for manufacture of flat glass. 3,512,951, 5-19-70, Cl. 65-252.
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Long, Emile David, to Gillett Tool Co., Inc., mesne. Control circuit for precision fuel metering systems. 3,500,802, 3-17-70, Cl. 123-32.
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Longenecker, Bruce Cameron; and Keller, Joseph Richard, to AMP Incorporated. Multiple light transmission from a single light source. 3,538,321, 11-3-70, Cl. 240-1.

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Longini, Richard L.; Romualdi, James P.; and Stelson, Thomas E., to Battelle Development Corporation, The, mesne. Concrete construction and roadways. 3,500,728, 3-17-70, Cl. 94-10.

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Longlet, Richard A.; and Keller, John Richard, to Minnesota Mining and Manufacturing Company. Metallized glass reflex-reflecting elements. 3,535,019, 10-20-70, Cl. 350-105.

Longley, Kermit D., to Witco Chemical Corporation. By-water dissolution, steam distillation, activated carbon and cation exchange treatment and crystallization. 3,551,300, 12-29-70, Cl. 203-31.

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Longnecker, Harry F. Sweeper for tractor. 3,493,987, 2-10-70, Cl. 15-83.

Longo, Santo. Electrically heated articles. 3,500,014, 3-10-70, Cl. 219-211.

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Longwell, John P., to Esso Research and Engineering Company. Rocket nozzle cooling. 3,521,452, 7-21-70, Cl. 60-204.

Longwell, John P., to Esso Research and Engineering Company. Low melting binary nitronium perchlorate propellant mixtures. 3,546,033, 12-8-70, Cl. 149-5.

Longwell, Thomas F.; and Reimer, William A., to Automatic Electric Laboratories, Inc. Semiconductor microphone employing two diaphragms. 3,535,470, 10-20-70, Cl. 179-110.

Longworth, David Phillip; Hick, Michael Alfred Sampson; and Lugton, William Townsley, to Associated Electrical Industries Limited. Arrangement for synthetic circuit-breaker testing including current controlled application of the simulated short circuit current. 3,515,982, 6-2-70, Cl. 324-28.

Longyear, Douglas M., Jr.; and Cooper, Donald R., to Bendix Corporation, The. Mechanically deflected fluid stream servo valve. 3,538,936, 11-10-70, Cl. 137-83.

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Looker, Olin L., to FMC Corporation. Corn harvesting machine. 3,499,272, 3-10-70, Cl. 56-18.

Looker, Olin L., to FMC Corporation. Feed mechanism for cornstalk ejector. 3,535,857, 10-27-70, Cl. 56-18.

Looker, Olin L., to FMC Corporation. Vine crop harvester. 3,536,140, 10-27-70, Cl. 171-61.

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Loomis, Russell M., to Unarco Industries, Inc. Pallet and stacking pin. 3,521,764, 7-28-70, Cl. 214-10.5

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Loose, Guenter H., to Corning Glass Works. Method of forming a glass to metal hermetic enclosure for electronic devices. 3,535,099, 10-20-70, Cl. 65-59.

Loose, Guenter H., to Corning Glass Works. Electroconductive coating resistor. 3,544,948, 12-1-70, Cl. 338-300.

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Loosemore, Michael John; and Bray, Jeremy William, to Metallurgical Processes Limited, and Imperial Smelting Corporation (N.S.C.) Limited, d/b/a Metallurgical Development Company. Method of operating and controlling a zinc blast furnace. 3,523,786, 8-11-70, Cl. 75-87.

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Lopker, Edwin B., to Pullman Incorporated. Process and apparatus for producing phosphoric acid from phosphate rock. 3,522,004, 7-28-70, Cl. 23-165.

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Loughlin, Bruce J.; Rachwal, Ervin J.; and Schiffman, Murray M., to Bunker-Ramo Corporation, The. Position encoding apparatus. 3,509,555, 4-28-70, Cl. 340-347.
Loughran, Eugene F., Jr., to North American Philips Corporation. Cam with balanced spring-loaded followers. 3,543,589, 12-1-70, Cl. 74-54.
Loughran, Gerard A.; and Burkett, Jerald L., to United States of America, Air Force. Polydisalicylide polymers. 3,515,695, 6-2-70, Cl. 260-47.
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Loughridge, Frederick A.; and Britt, Richard G., to Sylvania Electric Products, Inc. Quartz melting and tube forming furnace. 3,508,900, 4-28-70, Cl. 65-157.
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Loukes, David Gordon; and Nightingale, Glen. Flat glass. 3,544,437, 12-1-70, Cl. 204-180.
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Loukomsky, Serge A., to Battery Development Corporation. Production of negative electrodes for nickel- cadmium batteries. 3,540,930, 11-17-70, Cl. 136-24.
Loukomsky, Serge A., to Battery Development Corporation. Production of positive nickel electrodes for nickel- cadmium batteries. 3,540,931, 11-17-70, Cl. 136-29.
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Lourie, Norman M., to Honeywell Inc. Logic circuit with complementary output stage. 3,522,444, 8-4-70, Cl. 307-207.
Louthan, Rector P., to Phillips Petroleum Company. Process for producing thiol or sulfide derivatives of 1,2-bis(3-cyclohexen-1-yl) ethylene. 3,522,161, 7-28-70, Cl. 204-162.

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Love, Mahlon Lloyd, to Deere & Company. System for indicating variable harvesting machine conditions. 3,540,028, 11-17-70, Cl. 340-267.
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Lowe, Warren, to Chevron Research Company. Thiophosphate salts of aralkylene diamines as antiwear extreme pressure and oxidation inhibitor agents. 3,519,563, 7-7-70, Cl. 252-32.7
Lowe, Warren, to Chevron Research Company. Bis thiophosphoro carbamyl lubricating oil antioxidants. 3,537,998, 11-3-70, Cl. 252-46.7
Lowe, Wesley G.; and Herz, Arthur H., to Eastman Kodak Company. Chemically sensitizing photographic silver halide emulsions with phosphonium compounds. 3,523,023, 8-4-70, Cl. 96-107.
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Lowery, Andrew; and Clements, Richard F. Troxler Electronic Laboratories, Inc. Apparatus for measuring hydrogenous material utilizing radioactive source. 3,492,479, 1-27-70, Cl. 250-83.1
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Luetze, Wilhelm Otto, to International Business Machines Corporation. Simulated diode circuit. 3,541,350, 11-17-70, Cl. 307-229.

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Lyle, John P., Jr.; and Towner, Raymond J., to Aluminum Company of America. Process for making high quality hot-worked products from aluminum base alloy powders. 3,544,392, 12-1-70, Cl. 148-11.5

Lyle, John P., Jr.; and Towner, Raymond J., to Aluminum Company of America. Aluminum-copper-magnesium-zinc powder metallurgy alloys. 3,544,394, 12-1-70, Cl. 148-12.7

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Lyman, Joseph, to Cambridge Thermionic Corporation. Regulated suspension system. 3,490,816, 1-20-70, Cl. 308-10.

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Lynch, Thomas L. Self-powered self-cleaning debris remover. 3,527,349, 9-8-70, Cl. 210-156.

Lynch, Walter L., Jr., to Stone Manufacturing Company. Power-operated cloth folding apparatus. 3,534,954, 10-20-70, Cl. 270-93.

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Lynch, William T., to Bell Telephone Laboratories, Incorporated. Avalanche photodiode detection apparatus. 3,544,794, 12-1-70, Cl. 250-199.

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Lyness, Warren I., to Procter & Gamble Company, The. Sulfoximine corrosion inhibitor for acid solutions. 3,535,240, 10-20-70, Cl. 252-8.55

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Lynn, Scott; and Paalman, Hendrick Hunter, to Dow Chemical Company, The. Method of preparing hydrogen peroxide. 3,551,104, 12-29-70, Cl. 23-207.

Lynnworth, Lawrence C., to Panametrics, Inc. Ultrasonic testing method. 3,512,400, 5-19-70, Cl. 73-67.5

Lynnworth, Lawrence C., to Parametrics, Inc. High temperature ultrasonic measuring system. 3,538,750, 11-10-70, Cl. 73-67.7

Lynnworth, Lawrence C., to Panametrics, Inc. Dual ultrasonic sensors employing differing modes of ultrasonic transmission. 3,540,265, 11-17-70, Cl. 73-67.7

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Lyon, Zeno G., to International Telephone and Telegraph Corporation. Repeater terminal. 3,546,383, 12-8-70, Cl. 179-15.

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Lyons, Ernest H., Jr. Method of electroplating gold on chromium. 3,502,548, 3-24-70, Cl. 204-32.

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Lyons, John A., to Buzzards Corporation. Bathythermograph testing apparatus. 3,504,278, 3-31-70, Cl. 324-54.

Lyons, John W.; and Vandersall, Howard L., to Monsanto Company. Mixed cation ammonium potassium polyphosphates and methods for preparing the same. 3,549,347, 12-22-70, Cl. 71-34.

Lyons, Leland R.; and McCormick, Walter R., Jr., to National Lead Company. Purification of magnesium chloride salts for electrolytic magnesium production. 3,512,928, 5-19-70, Cl. 23-91.

Lyons, Michael D.: *See—*
Allen, Clifford W.; Wilson, Richard F.; and Lyons, Michael D.,3,509,794.

Lyons, Norman V.: *See—*
Parker, Willis D.; and Lyons, Norman V.,3,532,076.

Lyons, Robert J. Emergency-releasable holddown mechanism for hinged cover of a hatchway. 3,516,197, 6-23-70, Cl. 49-1.

Lyons, Robert J. Emergency release latch mechanism for smoke hatch. 3,516,198, 6-23-70, Cl. 49-1.

Lyons, Sanford C., to Georgia Kaolin Company. Method of treating secondary kaolin. 3,528,769, 9-15-70, Cl. 23-110.

Lyons, Stanley Lewis; and Pead, William Bert, to GAF Corporation. Ammonia tanks for use in developing diazo sensitized material. 3,504,614, 4-7-70, Cl. 95-94.

Lyons, Thomas C., to Mobil Oil Corporation. Gas lift retorting process for obtaining oil from fine particles containing hydrocarbonaceous material. 3,501,394, 3-17-70, Cl. 208-11.

Lyons, Vincent J.: *See—*
Grochowski, Edward G.; and Lyons, Vincent J.,3,523,046.

Lypko, William A.; and McCallum, Donald A. Combine ladder. 3,508,627, 4-28-70, Cl. 182-97.

Lysaght, Joseph R.; and Lysaght, Myrna. Rising table question and answer game. 3,511,505, 5-12-70, Cl. 273-161.

Lysaght, Myrna: *See—*
Lysaght, Joseph R.; and Lysaght, Myrna,3,511,505.

Lysenko, Dmitry Nikolaevich; Ermolaev, Valerian Vladimorovich; and Dudin, Anatoly Alexeevich. Method of pressure welding. 3,520,049, 7-14-70, Cl. 29-497.5

Lyshkow, Norman A., to Wilkens-Anderson Company. System for analysis of gases in trace amounts. 3,535,045, 10-20-70, Cl. 356-181.

Lyster, John F.; and Gunner, Christopher S. J., to Cow & Gate Limited. Road vehicles. 3,511,398, 5-12-70, Cl. 214-394.

Lysyj, Ihor; Groeper, Lawrence H.; and Nelson Kurt H., to North American Rockwell Corporation. Dual heat zone pyrolytic furnace. 3,544,277, 12-1-70, Cl. 23-253.

Lythgoe, Alan Lennox: *See—*
Reed, Kenneth James; and Lythgoe, Alan Lennox,3,519,456.

Lythgoe, Alan Lennox; and Knowles, Bernard John, to Letraset Limited. Dry transfer assembly. 3,510,385, 5-5-70, Cl. 161-33.

Lytle, Fred E.: *See—*
Hercules, David M.; and Lytle, Fred E.,3,503,893.
Hercules, David M.; and Lytle, Fred E.,3,515,674.

Lytle, Walter W., to Superior Strut & Hanger Co., Inc. Clamp for pipe support. 3,522,921, 8-4-70, Cl. 248-62.

Lytle, Walter W., to Superior Strut & Hanger Co., Inc. Pipe or tubing support. 3,527,432, 9-8-70, Cl. 248-62.

Lyttle, Josiah C., to Alexander-Tagg Industries, Inc. Exhaust silencer for internal combustion engines. 3,515,242, 6-2-70, Cl. 181-56.

M & B Headwear Co., Inc.: *See—*
Nuckols, Kenton Malicote, Jr., 3,530,027.

M & J Valve Company: *See—*
Grove, Marvin H.; and Van Arsdale, Lyle R., 3,523,675.
Lathrop, Francis M.; and Reaves, Vernon R., 3,511,082.
Lathrop, Francis M., II, 3,511,272.
Lathrop, Francis M., II, 3,530,705.

M & T Chemicals Inc.: *See—*
Bedi, Ram Dev, 3,511,758.
Bedi, Ram Dev, 3,525,676.
Davies, Alwyn George, 3,492,327.
Gerhardt, Robert Frank, 3,509,087.
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Hirshman, Justin L.; and Breza, Edward J., 3,523,961.
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Seyb, Edgar J., Jr.; Woehrle, Richard E.; and Neitzel, John G., 3,498,892.
Stoddard, William B., Jr.; and McMullen, Warren H., 3,528,894.

M & W Gear Co., Inc., The: *See—*
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M-C-T Enterprises, Inc.: *See—*
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M-O Valve Company Limited, The: *See—*
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M-R-S, Inc.: *See—*
Moran, Jack; Steveson, Boyd; and Reynolds, William A., 3,520,442.

Ma Puigmarti, Jose: *See—*
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Maag Gear Wheel & Machine Company Limited: *See—*
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Muller, Karl, 3,502,208.
Muller, Karl, 3,513,557.
Sommer, Gerd R., 3,501,869.

Maag, Gustav A.; and Gerth, Donald L., to Procter & Gamble Company, The. Controlling flow in granules heat exchanger. 3,537,511, 11-3-70, Cl. 165-32.

Maahs, Jerry D. Mobile oven unit. 3,521,030, 7-21-70, Cl. 219-202.

Maan, Cornelis: *See—*
Almer, Friedrich Hermann Raymund; Kuiper, Adrianus; and Maan, Cornelis,3,490,944.

Maap, Herbert; Steppan, Hartmut; Messwarb, Gunter; and Luders, Walter, to Kalle Aktiengesellschaft. Light-sensitive reproduction layer comprising an oxetane polymer. 3,499,759, 3-10-70, Cl. 96-35.1

Maas, Dieter; and Schmierl, Richard, to Agfa-Gevaert Aktiengesellschaft. Winding mechanism for spring motors of photographic cameras. 3,535,994, 10-27-70, Cl. 95-31.

Maas, John E., to McGill Manufacturing Company, Inc. Splash-proof electrical switch. 3,541,288, 11-17-70, Cl. 200-168.

Maas, Rudolf J.; and Bitter, Johan G.A., to Shell Oil Company. Process for the separation of mixtures of organic compounds by adduct formation. 3,502,568, 3-24-70, Cl. 208-25.

Maass, Donald A.: *See—*
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Maass, Gustav: *See—*
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Maassen, Gustav Christian: *See—*
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Maassen, Gustav Christian, to Vanderbilt, R. T., Company, Inc. Vulcanization process using thiazoles and mixtures of unsymmetrical thiuram disulfides. 3,539,638, 11-10-70, Cl. 260-79.5

Maatschappij voor Electronische Bedrijifsautomatisering Electrofact N.V.: *See—*
Metz, Leendert Theodor; Van Houwelingen, Jan; and De Jong, Hendrik, 3,498,901.

Maatz, Harvey R. Cleaning and sterilizing apparatus for barbering tools. 3,500,840, 3-17-70, Cl. 134-111.

Mabbett, John C., to Crosby Research, Inc. Electronic switching circuit. 3,530,309, 9-22-70, Cl. 307-246.

Mabie, Andrew R.; and Huckaby, Marion C., to Custom Control Manufacturer, Incorporated. Lap counter for vehicular racing game. 3,531,118, 9-29-70, Cl. 273-86.

Mabry, Ray W.; and Grimes, Arthur David. Cotton spindle. 3,540,196, 11-17-70, Cl. 56-50.

Mabuchi, Kiyoshi: *See—*
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Mac-Fab Manufacturing, Inc.: *See—*
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MacAllister, Robert V.: *See—*
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Macaluso, Joseph J., to InterRoyal Corporation. Cabinet locking mechanism. 3,511,549, 5-12-70, Cl. 312-219.

Macaluso, Michael, Jr. Golf game. 3,537,576, 11-3-70, Cl. 206-46.

MacArthur, Robert C., to Cornell Aeronautical Laboratory, Inc. Apparatus for determining dissolved oxygen concentration of biological fluids. 3,493,485, 2-3-70, Cl. 204-195.

MacArthur, Roger A., to Central Manufacturing District. Method for preparation of insulation panels of expanded perlite particles. 3,522,067, 7-28-70, Cl. 106-84.

MacArthur, Steven J.: *See—*
Brown, Stanley F.; and MacArthur, Steven J.,3,531,788.

Macarus, David P.: *See—*
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MacBean, Donald G., to Johnson Wire Works Limited, The. Fourdrinier wire belt. 3,523,867, 8-11-70, Cl. 162-348.

Macbee Engineering Corporation: *See—*
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Maccarone, Michael B.: *See—*
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MacCarthy, Richard W. Straight edge razor with relatively orbiting back-up teeth. 3,507,040, 4-21-70, Cl. 30-34.2

Maccherone, Lawrence Salvatore, to American Can Company. Plastic bag manufacture. 3,534,666, 10-20-70, Cl. 93-35.

Macchi, Eugene E.; and Katz, Henry B. Egg carton. 3,550,836, 12-29-70, Cl. 229-44.

Macciomei, Walter: *See—*
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Macco, John G.: *See—*
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MacCollom, Marjorie S. Fractionating 99 to 100% milk fat and making butter from the separated fats. 3,519,435, 7-7-70, Cl. 99-118.

MacConochie, Ian O., to United States of America, National Aeronautics and Space Administration. Excessive temperature warning system. 3,491,335, 1-20-70, Cl. 340-57.

MacCormac, Robert Cecil Hamilton; Goodfellow, Geoffrey Ivor; and Turner, Anthony Charles, to United Kingdom Atomic Energy Authority. Analytical atomic absorption spectrometry. 3,508,829, 4-28-70, Cl. 356-87.

MacCoy, Clifford Walter. Lighting control device. 3,508,042, 4-21-70, Cl. 240-9.

MacCracken, Calvin D., to Calmac Manufacturing Corporation. Method for preparing and maintaining ice skating rinks. 3,495,415, 2-17-70, Cl. 62-74.

MacCragh, Adolfo: *See—*
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MacCreadie, William T. Judging system for competitive swimming activities. 3,544,989, 12-1-70, Cl. 340-323.

Mac Crum, Archie N., to Westinghouse Electric Corporation. Variable flow path seal. 3,522,948, 8-4-70, Cl. 277-27.

MacDermid Incorporated: *See—*
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Grunwald, John J.; and Innes, William P., 3,533,727.
Roy, Clarence Henry; and East, Robert C., 3,524,817.

MacDonald, Albert J., to Wisdom Clubs of America, Inc. Apparatus for inhibiting entry. 3,507,229, 4-21-70, Cl. 109-29.

MacDonald, Donald C.: *See—*
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MacDonald, Donald K. Two-conductor remote switching and transmitting control system. 3,514,629, 5-26-70, Cl. 307-3[illegible].

MacDonald, Donald M.; and Alvarez, Edgardo J., to Canadian International Paper Company. Spinning of viscose. 3,531,560, 9-29-70, Cl. 264-189.

MacDonald, Donald M.; and Godsay, Madhu P., to Canadian International Paper Company. Method of increasing the water-retentivity of cellulose fibers and the product produced thereby. 3,551,410, 12-29-70, Cl. 260-212.

Mac Donald, Donald; and Brown, Roy J., to Owens-Corning Fiberglas Corporation. Self-aligning sandwich-type structural panels. 3,528,875, 9-15-70, Cl. 161-132.

MacDonald, Duncan N.; and Grabl, Sebastian, to Burroughs Corporation. Marginal test method and apparatus. 3,506,814, 4-14-70, Cl. 235-153.

MacDonald, Ernest G.; and Berg-Johannessen, Per R., to Dryden Paper Company, Limited. Apparatus for removing solids from liquid suspensions thereof. 3,537,584, 11-3-70, Cl. 210-196.

MacDonald, Gene William: *See—*
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MacDonald, Gilmour C. Thermal radiation weapon. 3,496,867, 2-24-70, Cl. 102-6.

MacDonald, Grant. Wire cable holders. 3,529,796, 9-22-70, Cl. 248-71.

MacDonald, Ira A.: *See—*
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Macdonald, James Grant: *See—*
Glass, James Stuart; Macdonald, James Grant; Nussbaum, Harry M.; and Zurek, Chester A.,3,490,645.

MacDonald, John G., to Dominion Road Machinery Co., Limited, The. Rotational sensing clutch mechanism. 3,491,605, 1-27-70, Cl. 74-96.

MacDonald, John G., to Control Data Corporation. Sorting apparatus. 3,519,145, 7-7-70, Cl. 214-11.

MacDonald, Joseph R.; and MacDonald, Winfred A. Cage type lobster form. 3,499,421, 3-10-70, Cl. 119-2.

Macdonald, Michael J., to Filament Extrudes Pty. Limited. Method and apparatus for producing twisted plastic fibre of predetermined length. 3,488,934, 1-13-70, Cl. 57-34.

Mac Donald, Noel C.: *See—*
Everhart, Thomas E.; and Mac Donald, Noel C.,3,528,064.

Macdonald, Peter Compton: *See—*
Cleaver, Denis; and Macdonald, Peter Compton,3,501,675.

Mac Donald, Robert D., to Cardinal of Adrian, Inc. Enclosure panel. 3,498,001, 3-3-70, Cl. 49-501.

MacDonald, Robert D.: *See—*
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MacDonald, Ronald E.; Mee, Charles Denis; and Voegeli, Otto, to International Business Machines Corporation. Magnetic memory having polarized state detector. 3,525,870, 8-25-70, Cl. 250-219.

MacDonald, Ronald E.: *See—*
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MacDonald, Ronald; and La Frienier, Elliott E. Muffle furnace. 3,541,293, 11-17-70, Cl. 219-390.

MacDonald, Wallace T.: *See—*
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MacDonald, Winfred A.: *See—*
MacDonald, Joseph R.; and MacDonald, Winfred A.,3,499,421.

MacDonnell, Robert W., to Allied Filter Engineering, Inc. Method for making pleated filter with stiffened peaks. 3,506,475, 4-14-70, Cl. 117-44.

MacDonnell, Robert W., to Unity Railway Supply Co., Inc. Self-lubricating side bearing. 3,514,169, 5-26-70, Cl. 308-138.

MacDonnell, Robert W., to Allied Filter Engineering, Inc. Filter. 3,516,549, 6-23-70, Cl. 210-351.

MacDougall, John D.; and Manchester, Kenneth E., to Sprague Electric Company. Resistive layer semiconductive device. 3,548,269, 12-15-70, Cl. 317-234.

Macdougall, John: *See—*
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MacDougall, Ralph E.; and Lindell, Melvin E., to Litton Systems, Inc. Electro-chemical method of producing thin metal flexures. 3,514,378, 5-26-70, Cl. 204-3.

MacDowell, John F.; and Wilson, Lois E., to Corning Glass Works. Al_2O_3-P_2O_5-B_2O_3 glass -ceramic articles and method. 3,519,445, 7-7-70, Cl. 106-39.

MacDuff, Stanley I., to Bendix Corporation, The. Dual ratio load sensing proportioning valve. 3,503,657, 3-31-70, Cl. 303-22.

MacDuff, Stanley I., to Bendix Corporation, The. Power brake system. 3,514,163, 5-26-70, Cl. 303-49.

MacDuff, Stanley I.; and Lewis, Richard L., to Bendix Corporation, The. Hydraulic boost pressure control device. 3,532,027, 10-6-70, Cl. 91-371.

MacDuffee, David L.; and Stewart, Joseph R., to International Business Machines Corporation. Printer having combined data input and automatic document feed mechanism. 3,508,032, 4-21-70, Cl. 235-61.11

Mace, Arthur B.: *See—*
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Mace, Edouard M. E. A.: *See—*
Pavlin, Cyrille Francois; Mace, Edouard M. E. A.; Jannot, Marcel Augustin Joseph; and Salmon, Benjamin Jean Marcel,3,526,099.

Mace, Eric Arthur Roy, to Die Casting Machine Tools Limited. Die casting machine with controlled injection. 3,491,827, 1-27-70, Cl. 164-318.

Macek, John P., to Pullman Incorporated. Process and apparatus for liquid level control. 3,509,892, 5-5-70, Cl. 137-9.

Macek, Thomas J.; Shoop, Clyde E.; and Stauffer, Dennis R., to Merck & Co., Inc. Palatable coated particles of an anion exchange resin. 3,499,960, 3-10-70, Cl. 424-33.

Macek, Thomas J.: *See—*
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Macek, Warren M., to Sperry Rand Corporation. Ring laser having minimized frequency locking characteristic. 3,508,831, 4-28-70, Cl. 356-106.

Macek, Warren M.; and Schneider, Joseph R., to Sperry Rand Corporation. Electro-Optical scanner. 3,499,701, 3-10-70, Cl. 350-150.

Macemon, Herbert J., to General Electric Company. Airport lighting fixture. 3,501,627, 3-17-70, Cl. 240-1.2

MAC Engineering and Equipment Company: *See—*
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MacFadden, John A.: *See—*
United States of America,National Aeronautics and Space Administration, Administrator, 3,508,999.

MacFarland, James Stewart; Meyrick, Thomas James; and Sharma, Vijay Ratna, to Imperial Chemical Industries Limited. Process for coating articles with polyvinyl chloride compositions containing as bonding agent a mixture of a polyisocyanate free from isocyanurate rings and an isocyanurate polymer. 3,505,105, 4-7-70, Cl. 117-138.8

MacFarlane, Douglas I.; and Keating, Robert F., to North American Rockwell Corporation. Automatic voltage control for electric arc discharge device. 3,529,124, 9-15-70, Cl. 219-125.

MacFarlane, Peter: *See—*
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Macgeorge, William D., to American Meter Company. Control circuit for maintaining a charge in a capacitor. 3,544,898, 12-1-70, Cl. 324-157.

Macgeorge, William D.; and Beavers, Robert J., to Thwing-Albert Instrument Company. Press inkometer. 3,516,289, 6-23-70, Cl. 73-150.

MacGovern, Alan John: *See—*
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MacGrandle, Timothy D.; Taylor, Paul; and Rossitto, Conrad, to USM Corporation. Stiffening processes with two-part hot-melt thermosetting compositions. 3,488,665, 1-6-70, Cl. 12-146.

MacGregor, Douglas, to Kessler, George. Intravenous catheter unit. 3,550,591, 12-29-70, Cl. 128-214.4

Mac Gregor, James D.,: *See—*
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Mac Gregor, Rob R.: *See—*
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Mac Gregor, Rob R.; Stanley, Albert J.; and Moore, William P., to Allied Chemical Corporation. Production of ammonium polyphosphates. 3,492,087, 1-27-70, Cl. 23-106.

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Mac Gregor-Comarian, Incorporated: *See—*
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MacGugan, Ian C., to Wyandotte Chemicals Corporation. Polyurethane latices as paper-making additives. 3,518,113, 6-30-70, Cl. 117-155.

Macha, Ewald: *See—*
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Machanian, William V., to Wurlitzer Company, The. Keyboard actuated rhythm accompaniment. 3,520,984, 7-21-70, Cl. 84-1.24

Machanian, William V., to Wurlitzer Company, The. Electronic organ with diverse filters and anti-plop bias arrangement. 3,526,701, 9-1-70, Cl. 84-1.11

Machate, Fred: *See—*
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Machatzke, Heinz, to Farbenfabriken Bayer Aktiengesellschaft. Monoazo dyestuffs containing a 4-organoamino- methylene-1-hydroxy-naphthalene-2-carboxylic acid group. 3,492,285, 1-27-70, Cl. 260-151.

Machatzke, Heinz, to Farbenfabriken Bayer Aktiengesellschaft. Anthrapyrimadone and anthrapyridone dyestuffs containing an N-methylenecarboxamide group. 3,534,038, 10-13-70, Cl. 260-256.4

Machavariani, Irakly Shalvovich: *See—*
Khodosh, Vladimir Alexandrovich; Salov, Sergei Fedorovich; Ivanov, Valentin Alexandrovich; Vasilenko, Evstafy Andreevich; Pachulia, Budu Pavlovich; Kurashvili, Abessalom Iosifovich; Bolotin, Evgeny Moiseevich; Khaidurov, Leonid Konstantinovich; and Machavariani, Irakly Shalvovich,3,550,389.

Machefert-Tassin, Yves, to Societe M T E. Resilient supporting device for a railway linear motor. 3,516,364, 6-23-70, Cl. 105-49.

Machein, Kurt R.; Phan, John T.; and Stosberg, Arturo E., to Data Memory, Inc., mesne. Apparatus for producing a single picture signal from a composite video signal for display in a television receiver. 3,501,584, 3-17-70, Cl. 178-6.6

Machell, Greville, to Deering Milliken Research Corporation. Chemically catalyzed polymerization of unsaturated monomers containing both electrophilic and nucleophilic groups on keratin fibers. 3,495,930, 2-17-70, Cl. 8-127.6

Macher, Karl, to Schneider, Jos., & Co., Optische Werke. Four-component varifocal objective with five fixed and two movable lens members. 3,540,799, 11-17-70, Cl. 350-184.

Macher, Karl, to Schneider, Jos., & Co. High-speed varifocal objective system. 3,549,235, 12-22-70, Cl. 350-184.

Machi, Sueo: *See—*
Kagiya, Tsutomu; Machi, Sueo; Kawakami, Waichiro; Hagiwara, Miyuki; and Hosaki, Yoshihiko,3,516,912.
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Hisamoto, Hironori; Nishimura, Muneo; and Machida, Kanji,3,516,038.

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Machinefabriek M. Brouwer & Co. N.V.: *See—*
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Machinery and Welder Manufacturing Corporation: *See—*
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Machlan, George R., to Owens-Corning Fiberglas Corporation. Method for removing solids suspensions in liquids. 3,542,674, 11-24-70, Cl. 210-42.

Machleidt, Hans: *See—*
Keck, Johannes; Kruger, Gerd; Machleidt, Hans; Noll, Klaus; Engelhardt, Gunther; and Eckenfels, Albrecht,3,536,712.
Schmidt, Gunther; Machleidt, Hans; and Konigsdorfer, Karl,3,539,554.
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Machler, Raymond C. Process for recording digital information so as to provide an analog representation of such information. 3,550,148, 12-22-70, Cl. 346-1.

Machlett Laboratories, Incorporated, The: *See—*
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Herrgen, Robert F.; and L'Eplattenier, Alfred, 3,495,142.
Mahn, George R., 3,489,959.
Nevins, William H., 3,551,724.
Randmer, Jacob A.; and Peter, Erich C., 3,513,348.
Randmer, Jacob A.; and Agule, George J., Sr., 3,539,858.
Singer, Barry M.; and Johnson, Carl T., 3,506,870.

Machlin, Eugene S., to U.S. Smelting, Refining & Mining Co. Method and apparatus for the continuous casting of metal tubing. 3,542,116, 11-24-70, Cl. 164-86.

Machlowitz, Roy A.; and Lampson, George P., to Merck & Co., Inc. Process for producing purified concentrated influenza virus. 3,547,779, 12-15-70, Cl. 195-1.5

Machlup, Gustav F.; and Littmann, David, to Minnesota Mining and Manufacturing Company. Stethoscope head construction. 3,515,239, 6-2-70, Cl. 181-24.

Macholdt, Hans: *See—*
Eichenseer, Franz; Janocha, Siegfried; and Macholdt, Hans,3,544,556.

Machova, Alena: *See—*
Zaoral, Milan; Vavra, Ivan; Machova, Alena; and Sorm, Frantisek,3,497,491.

MacInnis, Martin B.: *See—*
Dunn, Richard; MacInnis, Martin B.; and Mehalchick, Emil J.,3,535,149.

MacIntosh, Gerald W.; and Mumma, Richard H., to Hercules Incorporated. Method of filling or bonding clean metal surfaces. 3,488,212, 1-6-70, Cl. 117-75.

MacIntyre, Alfred J., to Sanders Associates, Inc. Electroluminescent display device producing a graphical display in a selected color. 3,496,410, 2-17-70, Cl. 315-169.

MacIntyre, Alfred J., to Sanders Associates, Inc. Planar electroluminescent plural character display. 3,544,990, 12-1-70, Cl. 340-336.

Macione, Jack: *See—*
Fischer, Harvey D.; Palumbo, Nunzio J.; and Macione, Jack,3,500,771.

MacIsaac, John T.; and Sumpter, Charles B., Jr., to Fieldcrest Mills, Inc. Gripper loom for weaving pile fabrics and method. 3,521,676, 7-28-70, Cl. 139-6.

Maciula, L. Andrew; and Reed, Robert E., to Oklahoma State University. Hydrocyclone filter. 3,529,724, 9-22-70, Cl. 210-197.

MacIver, Bernard A.; and McKinnon, Matthew C., to General Motors Corporation. Metal-insulator-semiconductor voltage variable capacitor with controlled resistivity dielectric. 3,512,052, 5-12-70, Cl. 317-234.

Maciver, Donald R.: *See—*
Hopkins, Leslie O.; Stephenson, Harry; and Maciver, Donald R.,3,509,182.

Mack, Alfred H.: *See—*
Greulich, Robert G.; Mack, Alfred H.; and Blackwood, John,3,499,406.

Mack, Charles H.: *See—*
Ellzey, Samuel E., Jr.; Mack, Charles H.; and Connick, William J., Jr.,3,493,576.
Franklin, William E.; Mack, Charles H.; and Rowland, Stanley P.,3,547,574.

Mack, Donald E.: *See—*
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Mack, Donald E.: *See—*
Jacobson, Charles L.; and Mack, Donald E.,3,510,803.

Mack, Ernst, to Goldschmidt, Th., A.G. Flowable ammonium thiosulfate and method for its manufacture. 3,512,929, 5-19-70, Cl. 23-115.

Mack, Erwin, to British & Overseas Minerals Limited. Furnaces for processing expandable volcanic rock. 3,511,485, 5-12-70, Cl. 263-21.

Mack, James O., Jr., to Hercules Incorporated. Primer for use with caseless ammunition. 3,504,629, 4-7-70, Cl. 102-38.

Mack, James O., Jr.: *See—*
Hensley, Perry J.; and Mack, James O., Jr.,3,501,858.

Mack, Leon W., to Sanders Associates, Inc. Fluid acceleration switch. 3,524,031, 8-11-70, Cl. 200-61.53

Mack, Peter Albert; and Price, Raymond, to Imperial Chemical Industries Limited. Cobalt containing azo dyestuffs. 3,538,073, 11-3-70, Cl. 260-146.

Mack, Robert J., to Kendall Company, The. Fluid pressure indicator. 3,546,944, 12o15-70, Cl. 73-388.

Mack, Robert L.: *See—*
Kleiman, Joseph P.; and Mack, Robert L.,3,511,633.
Kleiman, Joseph P.; and Mack, Robert L.,3,511,634.

Mack, Royce K., to Babcock & Wilcox Company, The. Pressure pouring tube. 3,529,753, 9-22-70, Cl. 222-464.

Mack Trucks, Inc.: *See—*
Detra, Irvin G., 3,511,116.
Detra, Irvin G.; and Carlson, Paul E., 3,527,113.
May, Walter M.; and Pelizzoni, Winton J., 3,487,634.
Webster, Robert M., Jr., 3,537,696.
Willis, Delbert E., 3,495,473.

Mack, Wilhelm, to Consortium fur Elektrochemische Industrie GmbH. Process for manufacturing tellurophene and its derivatives. 3,542,764, 11-24-70, Cl. 260-239.

Mack-Wayne Plastics Company: *See—*
McIntosh, James A., 3,520,435.

MacKay, Charles A.: *See—*
Coker, Lewis R.; and MacKay, Charles A.,3,526,382.

MacKay, Francis: *See—*
Harrison, Sidney J.; and MacKay, Francis,3,525,265.

MacKay, Ian Norton; and Irvine, John Laurance, to Canadian General Electric Company Limited. Tub closure ball valve. 3,489,158, 1-13-70, Cl. 137-1.

Mackay, John M.; and McKee, Robert B., Jr., to United States of America, Navy. Method of fabricating a flexible impregnated glass fiber tether having maximum strength properties. 3,533,870, 10-13-70, Cl. 156-180.

Mac Kay, Joseph H., Jr., to Standard Abrasives, Inc. Back pad structure. 3,491,494, 1-27-70, Cl. 51-358.

MacKay, Robert H., to Lincoln Manufacturing Company, Inc. Transportable and heated container for dish elevator. 3,493,725, 2-3-70, Cl. 219-385.

MacKay, Robert H.: *See—*
Rhoads, Delmar D.; and MacKay, Robert H.,3,516,485.

Mackay-Smith, Matthew P. Horseshoe. 3,548,947, 12-22-70, Cl. 168-29.

Mackell, Bernard B., to Davis Aircraft Products Company, Inc. Inflatable cargo blanket. 3,548,904, 12-22-70, Cl. 150-0.5

MacKellar, Donald G.: *See—*
Blumbergs, John H.; and MacKellar, Donald G.,3,542,815.
Blumbers, John H.; and MacKellar, Donald G.,3,513,136.
Castrantas, Harry M.; MacKellar, Donald G.; Mucenieks, Paul R.; and Cohen, Bernard,3,535,292.

MacKellar, Donald G.; Blumbergs, John H.; and von Falkenstein, Rainer, to FMC Corporation. Process for producing tetraacetyl derivatives of diamines. 3,539,629, 11-10-70, Cl. 260-561.

Macken, John A., to North American Rockwell Corporation. Digital optical frequency shifter. 3,527,532, 9-8-70, Cl. 356-4.

MacKendrick, Robert G., to Procter & Gamble Company, The. Chip frying machine. 3,520,248, 7-14-70, Cl. 99-353.

Mackenzie, Elbert K., to Electro-Mechanical Instrument Company, Inc. Indicating device with wire pointer-balance. 3,522,534, 8-4-70, Cl. 324-154.

Mackenzie, Hector C. B.; Berkeley, Robert S. L.; and North, John M. W. Cigar-making machine. 3,529,603, 9-22-70, Cl. 131-20.

MacKenzie, Joseph Henry, Jr. Frame structure for wire termination blocks. 3,521,129, 7-21-70, Cl. 317-122.

Mackenzie, Kenneth W.: *See—*
Norris, Lannie F.; and Mackenzie, Kenneth W.,3,532,255.

MacKenzie, Ramona K. Automatic wig cleaning device. 3,516,269, 6-23-70, Cl. 68-96.

Mac Kew, James. Tool bit holder. 3,543,364, 12-1-70, Cl. 29-96.

Mackey, Andrew F.: *See—*
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Mackey, Bruce Alexander, Jr.; and Naureckas, Edward Martin, to Radial Lip Machine Corporation. Drill grinding apparatus. 3,521,405, 7-21-70, Cl. 51-5.

Mackey, E. Scudder; Mayhew, Raymond L.; and Gantz, George M., to GAF Corporation. Coating compositions comprising alpha-sulfo lower alkyl ester of a C_7 to C_{18} fatty acid. 3,516,835, 6-23-70, Cl. 96-114.5

Mackey, E. Scudder; Pechmann, Karl; and Leary, Robert E., to GAF Corporation. Antistatic photographic film. 3,551,152, 12-29-70, Cl. 96-85.

Mackey, E. Scudder; York, Arthur L.; and Dersch, Fritz, to GAF Corporation. Water-soluble acid esters of polyoxyalkylenated pentaerythritol in silver halide emulsions. 3,532,501, 10-6-70, Cl. 96-107.

Mackey, John A. Medical restraint. 3,521,625, 7-28-70, Cl. 128-133.

Mackey, Robert E., to TRW Inc. Passive release mechanism for space vehicles. 3,547,375, 12-15-70, Cl. 244-1.

Mackey, Steven A., 10% to Ayers, Floyd W. 10% to Conklin, Oran A. 10% to Mackey, Andrew F. 5% to Solberg, Lucile D. 5% to Hoel, Elvin I. 5% to Taylor, Kenneth R. G. 1% to Nichols, Theron H. Naval game apparatus with multiple illuminated playing surfaces. 3,508,753, 4-28-70, Cl. 273-131.

Mackie, James, & Sons Limited: *See—*
Mackie, John Kay Pringle, 3,532,280.
Mackie, John Kay Pringle, 3,550,876.

Mackie, James D., to Lee-Rowan Company. Expanding shelf clothes rack. 3,499,541, 3-10-70, Cl. 211-134.

Mackie, John Kay Pringle, to Mackie, James, & Sons Limited. Textile winding machines. 3,532,280, 10-6-70, Cl. 242-45.

Mackie, John Kay Pringle, to Mackie, James, & Sons Limited. Creel. 3,550,876, 12-29-70, Cl. 242-129.8

Mackie, William A. D.: *See—*
Hawke, Eugene E.; and Mackie, William A. D.,3,495,857.

Mackie, William L., to United States of America, Navy. Building structure with different foam layers. 3,503,167, 3-31-70, Cl. 52-173.

Mackin, John P., Jr.: *See—*
Perry, Edward H.; Mackin, John P., Jr.; and Harwood, Kenneth J.,3,527,199.

MacKinney, John J.; and Herring, James M., Jr., to Budd Company, The. Arc welding monitor system. 3,532,853, 10-6-70, Cl. 219-131.

MacKinnon, Charles E., to International Salt Company. Solvating system. 3,494,746, 2-10-70, Cl. 23-312.

Mac Kinnon, Ian Archie, to Lely Ltd. Device for spreading liquid manure. 3,489,320, 1-13-70, Cl. 222-156.

MacKinnon, Ian Archie, to Lely Ltd. Devices for distributing liquid, and methods of distributing liquid. 3,534,888, 10-20-70, Cl. 222-178.

MacKinnon, Ian Archie, to Lely Ltd. Transportable devices for spreading material. 3,550,865, 12-29-70, Cl. 239-670.

Mackintosh, Alexander W. P. Means for imparting twist to yarns. 3,537,250, 11-3-70, Cl. 57-77.4

Mackles, Leonard: *See—*
Puetzer, Bruno; Mackles, Leonard; and Finn, Alexander V.,3,511,791.

Mackles, Mark: *See—*
Ehrlich, Stanley W.; Banikiotes, Gregory C.; and Mackles, Mark,3,547,809.

Macko, Edward: *See—*
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Loev, Bernard; and Macko, Edward,3,529,012.

Mackor, Adrianus: *See—*
De Boer, Thijmen J.; and Mackor, Adrianus,3,544,438.

Mackowiak, James F., to Associated Western Enterprises. Speed control for internal combustion engines. 3,491,734, 1-27-70, Cl. 123-102.

Mackrle, Svatopluk; Mackrle, Vladimir; and Dracka, Oldrich, to Rudne A. Nerudne Doly. Method and arrangement for chemical clarifying of liquids. 3,524,810, 8-18-70, Cl. 210-20.

Mackrle, Svatopluk: *See—*
Mackrle, Vladimir; Mackrle, Svatopluk; and Dracka, Oldrich,3,549,012.

Mackrle, Vladimir: *See—*
Mackrle, Svatopluk; Mackrle, Vladimir; and Dracka, Oldrich,3,524,810.

Mackrle, Vladimir; Mackrle, Svatopluk; and Dracka, Oldrich, to Ceskoslovenska akademie ved. Method and equipment for automatic washing of rapid filters. 3,549,012, 12-22-70, Cl. 210-108.

Mackta, Leo. Method and apparatus for determining velocity of moving objects. 3,511,569, 5-12-70, Cl. 356-28.

Mackway, Harold J., to RCA Corporation. Push button mechanism. 3,519,766, 7-7-70, Cl. 200-5.

MacLachlan, Donald Fulton Alexander: *See—*
Squire, Allan Maurice; and MacLachlan, Donald Fulton Alexander,3,497,950.

MacLam, James A.: *See—*
Carrigan, William H.; and MacLam, James A.,3,518,334.

MacLean, Roderick C.: *See—*
Kurth, Carl F.; and MacLean, Roderick C.,3,550,132.

MacLean-Fogg Lock Nut Co.: *See—*
Couillais, Yvan A., 3,492,682.

Mac Lellan, Bruce D.: *See—*
Barker, Thomas B.; Mac Lellan, Bruce D.; and Mytych, Casimir J.,3,519,124.

Mac Leod, David M.; and Ilnyckyj, Stephan, to Esso Research and Engineering Company. Wax composition for sealing paper to polyethylene film. 3,496,062, 2-17-70, Cl. 161-235.

MacLeod, Gardner J.: *See—*
MacLeod, Hugh W.; and MacLeod, Gardner J.,3,516,192.

Macleod, Gordon Ross, to Midland-Ross of Canada Limited. Treating apparatus. 3,509,638, 5-5-70, Cl. 34-54.

MacLeod, Graeme S.; Maguire, Paul R.; and Westhead, William A., to Rite Hardware Manufacturing Co. Backpack airconditioning apparatus. 3,496,703, 2-24-70, Cl. 55-234.

MacLeod, Hugh W.; and MacLeod, Gardner J. Detachable slip sinker and drop-off sinker. 3,516,192, 6-23-70, Cl. 43-43.12

MacLeod, Jack H.: *See—*
Frandsen, LeRoy; Lindner, Robert G.; and MacLeod, Jack H.,3,538,664.

Mac Leod, John H., to Robertson, H. H., Company. Building wall fin unit. 3,538,663, 11-10-70, Cl. 52-309.

MacLeod, John Kenneth; and Reed, Kenneth Gordon, to Imperial Chemical Industries Limited. Process for dyeing viscose rayon and nylon with subsequent fixation in a halogenated hydrocarbons bath. 3,523,749, 8-11-70, Cl. 8-54.2

MacLeod, Peter John: *See—*
Smith, Leslie Harrold; and MacLeod, Peter John,3,545,292.

Maclodyne Corporation: *See—*
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Maclusky, Gordon J. R., to British Aircraft Corporation Operating Limited. Rotating beam missile guidance system. 3,501,113, 3-17-70, Cl. 244-3.13

Mac Mahon, Paul H., 49% to Shand, Gadsden. Pre-rotatable tire. 3,529,792, 9-22-70, Cl. 244-103.

Mac Manufacturing Company, Inc.: *See—*
Rogers, Harry T.; and Rogers, James H., 3,534,850.

MacManus, Daniel C.: *See—*
Schultz, Forrest O. E.; and MacManus, Daniel C.,3,533,383.

MacMartin, Malcolm P.: *See—*
Kusters, Norbert L.; and MacMartin, Malcolm P.,3,489,038.
Kusters, Norbert L.; and MacMartin, Malcolm P.,3,490,038.
Kusters, Norbert L.; and MacMartin, Malcolm P.,3,500,171.

MacMaster, Gordon. Building construction. 3,511,005, 5-12-70, Cl. 52-293.

MacMaster, Malcolm D.; and Morris, Herbert R., to Emhart Corporation. Refrigerated equipment. 3,517,526, 6-30-70, Cl. 62-256.

MacMeekin, Robert A.: *See—*
Ryan, John W.; MacMeekin, Robert A.; and Meggs, Daniel H.,3,529,479.

MacMillan Bloedel Limited: *See—*
Barnes, Derek, 3,509,851.
Barnes, Derek, 3,516,388.
McManus, Thomas; and Hollemans, Jan C., 3,514,866.
Vinje, Magnus G.; and Worster, Hans, 3,520,773.

MacMillan, Daniel G. Modular construction frame. 3,545,625, 12-8-70, Cl. 211-148.

MacMillan, Donald M., deceased0 (by MacMillan, Kenneth T.; executor). Tire retread matrix mold with tapered lock heater ring. 3,520,025, 7-14-70, Cl. 18-18.

MacMillan, Douglas R.; and Eichberg, Frank D., to Plummer, Walter A. One-piece elbow jacket and method of making the same. 3,503,426, 3-31-70, Cl. 138-168.

Mac Millan, Francis S. Kilmer; and Lyness, Warren I., to Procter & Gamble Company, The. Compositions for topical application to animal tissue and method of enhancing penetration thereof. 3,527,864, 9-8-70, Cl. 424-177.

MacMillan, Henry J., to Albany Felt Company. Fabric strength measuring device. 3,498,120, 3-3-70, Cl. 73-102.

MacMillan, John Buchanan, to Canadian Industries Limited. Process and apparatus for removing mercury from caustic soda solutions. 3,502,434, 3-24-70, Cl. 23-184.

MacMillan, Kenneth T.: *See—*
MacMillan, Donald M.,3,520,025.

MacMunn, George D., to Webb, Jervis B., Company. Sonic control for self-guided vehicles. 3,493,920, 2-3-70, Cl. 340-1.

Macmunn, James L., to North American Rockwell Corporation. Fluid injector with manifold-forming sealing ring. 3,508,712, 4-28-70, Cl. 239-600.

MacMurtrie, Edward D.; and Taylor, Wesley V., Jr., to Texaco Inc. Chromatographic analysis. 3,550,429, 12-29-70, Cl. 73-23.1

MacNab, Robert B.: *See—*
Appleton, Anthony D.; Ginty, Bernard K.; and MacNab, Robert B.,3,535,573.

MacNab, Robert B., to International Research & Development Company Limited. Homopolar electrical machines. 3,548,231, 12-15-70, Cl. 310-178.
Appleton, Anthony Derek; and Macnab, Robert Beattie,3,539,852.

MacNair, Alan K., to Westvaco Corporation. Phase separation coating compositions and substrates coated therewith. 3,522,201, 7-28-70, Cl. 260-32.8

MacNair, Donald, to Bell Telephone Laboratories, Incorporated. Method for processing gas discharge devices. 3,492,598, 1-27-70, Cl. 331-94.5

Macneale, Neil, to Procter & Gamble Company, The. Tray forming bundle wrap. 3,519,125, 7-7-70, Cl. 206-65.

MacNeil, Howard F. Sanitation system. 3,539,012, 11-10-70, Cl. 210-238.

MacNeill, Horace N., to Container Corporation of America. Tamper-proof closure arrangement. 3,493,140, 2-3-70, Cl. 215-42.

Mac Norius, Bronislaus Joseph, to Croft Metal Products, Inc. Joinery insert. 3,527,280, 9-8-70, Cl. 151-41.75

Maco Industries, Inc.: *See—*
Madden, Thomas G., 3,525,202.

Macomber, James Keith, to Consolidated Educational Publishing, Inc. Tachistoscope. 3,498,700, 3-3-70, Cl. 351-31.

Macomber, James Keith, to Consolidated Educational Publishing, Inc. Projection reader. 3,502,406, 3-24-70, Cl. 353-74.

Macon, Charles E.; Barton, Robert S.; Quantz, Paul A.; and Shimabukuro, George T., to Burroughs Corporation. Instruction storage & retrieval apparatus for cyclical storage means. 3,490,006, 1-13-70, Cl. 340-172.5

Macon, Charles E.; Barton, Robert S.; Quantz, Paul A.; and Shimabukuro, George T., to Burroughs Corporation. Instruction conversion system and apparatus. 3,537,072, 10-27-70, Cl. 340-172.5

Macon, George S.; and Napolitano, Michael A., to Singer-General Precision, Inc. Means for minimizing gyroscope trending. 3,540,294, 11-17-70, Cl. 74-5.5

Macon, Jack F., to Burlington Industries, Inc. Means for advancing or conveying material. 3,504,836, 4-7-70, Cl. 226-153.

Macon, John I.; and Huffstetler, Samuel H. Paddle dyeing machine. 3,513,672, 5-26-70, Cl. 68-210.

Macone, Frederick W.: *See—*
Denaro, James J.; and Macone, Frederick W.,3,520,756.

Macone, Frederick W., to Avant Corporation. Laminated card envelope. 3,526,567, 9-1-70, Cl. 161-147.

Macone, Frederick W., to Avant Incorporated. Camera masking device particularly useful in identification card cameras. 3,540,362, 11-17-70, Cl. 95-36.

Macone, Frederick W., to Avant Incorporated. Card punching device. 3,543,626, 12-1-70, Cl. 83-449.

Macor, George S.; Krupick, Walter J.; and Cimera, Richard F., to Singer-General Precision, Inc. Method and means for calibrating spring rate and gimbal unbalance in free-rotor flexure-suspended gyroscopes. 3,538,776, 11-10-70, Cl. 74-5.

Macor, Goerge S.: *See—*
Bilinski, Donald J.; and Macor, Goerge S.,3,527,062.

Macovski, Albert: *See—*
Rhodes, Roland Norman; and Macovski, Albert,3,510,573.

Macovski, Albert, to Stanford Research Institute. Photography using spatial filtering. 3,504,606, 4-7-70, Cl. 95-12.20

Macovski, Albert, to Stanford Research Institute. High speed light scanning system. 3,514,181, 5-26-70, Cl. 350-150.

Macovski, Albert, to Stanford Research Institute. Photographic coding-decoding system. 3,533,340, 10-13-70, Cl. 95-12.2

Macovski, Albert, to Stanford Research Institute. Single tube color camera utilizing electrically variable color filters. 3,534,154, 10-13-70, Cl. 178-5.4

Macovski, Albert, to RCA Corporation. Color television camera overload compensating system. 3,546,373, 12-8-70, Cl. 178-5.4

Macovski, Albert; and Woodbury, James R., to Southern Pacific Transportation Company. Bandwidth reduction technique for analog signal. 3,538,246, 11-3-70, Cl. 178-6.

MacPeek, Donald L.: *See—*
Marcus, Erich; and MacPeek, Donald L.,3,506,723.

MacPhail, David D., Sr., to Monsanto Company. Laminated product and process. 3,502,539, 3-24-70, Cl. 161-160.

Mac Pheat, Alexander M., to Western Electric Company, Incorporated. Movable contacts with oppositely inclined keying slots for providing wiping action in a pushbutton switch. 3,539,749, 11-10-70, Cl. 200-159.

MacPherson, Alan H., to Bell Telephone Laboratories, Incorporated. Stable, real time, frequency inverse filtering system and method. 3,496,479, 2-17-70, Cl. 328-167.

MacPherson, Leonard, to Rathcon, Inc. Magnetic amusement device. 3,550,316, 12-29-70, Cl. 46-238.

MacPherson, William F., to Bell Telephone Laboratories, Incorporated. Manufacture of insulated wires. 3,504,395, 4-7-70, Cl. 18-2.

Mac Pherson, William F.; and Windeler, Alfred S., to Bell Telephone Laboratories, Incorporated. Cable with fully controllable pair twist length. 3,546,357, 12-8-70, Cl. 174-34.

Macquat, Kurt, to Automatica SA. Stirrer-ball mill. 3,533,566, 10-13-70, Cl. 241-153.

MacQueston, Dexter H., to Kalart Company Inc., The. Splicer for butt splicing motion picture film. 3,546,046, 12-8-70, Cl. 156-505.

Macrae, Robert Stuart. Reflecting road stud. 3,502,008, 3-24-70, Cl. 94-1.5

Macreno, Fred, Jr.: *See—*
Clapp, Gary D.; Macreno, Fred, Jr.; and Willis, Donald R.,3,495,219.

Macriss, Robert A.; and Rush, William F., to American Gas Association, Inc., mesne. Lithium bromide-lithium thiocyanate-water composition for an absorbent-refrigeration system. 3,541,013, 11-17-70, Cl. 252-69.

MacRobbie, Robert Murray: *See—*
Boll, Martin William; and MacRobbie, Robert Murray,3,509,670.

Macrow, Lawrence. Gas-liquid contact apparatus. 3,538,657, 11-10-70, Cl. 55-231.

Macrow, Lawrence. Drum for intimately contacting gas and liquid. 3,544,084, 12-1-70, Cl. 261-29.

MacTurk, William L.: *See—*
Dugan, William P.; and MacTurk, William L.,3,487,539.

MAC Valves, Inc.: *See—*
Fagerlie, Richard A.; Bowsher, James R.; and Neff, James A., 3,538,954.

MacVaugh, Wayne H., to I-T-E Imperial Corporation, mesne. Gasket for interfitting conduit sections of an isolated phase bus system. 3,515,396, 6-2-70, Cl. 277-177.

MacWilliam, Wallace, to Scovill Manufacturing Company. Hose and hose coupling assembly. 3,549,180, 12-22-70, Cl. 285-256.
Macy, David S., to Stroco, Inc. Collet attachment for power tools. 3,533,637, 10-13-70, Cl. 279-53.
Macy, David S., to General-Electro Mechanical Corporation. Tool coupling device. 3,534,640, 10-20-70, Cl. 77-71.
Macy, James B., Jr.: *See—*
Satterthwaite, James Glenn; and Macy, James B., Jr.,3,487,805.
Macy, James C., to Incorporated Thrust. Electromagnetic actuating device. 3,488,614, 1-6-70, Cl. 335-264.
Macy, Valentine E., Jr.: *See—*
Allen, Earle F., 3,495,508.
Maczka, Frank W., to United States of America, Navy, mesne. Quiet attenuator system utilizing relay activated photosensitive resistors. 3,525,926, 8-25-70, Cl. 323-21.
Mac Zura, George: *See—*
Gitzen, Walter H.; and Mac Zura, George,3,516,840.
Madachy, John F. Swing type arbor attachment for quick tool changes. 3,545,326, 12-8-70, Cl. 83-433.
Madame Suzanne Nayagam, nee Perrin, Petaling Jaya: *See—*
Nayagam, Tharma, 3,497,174.
Madarasz, Miklos; and Baio, Alfred R., to Sealectro Limited. Flexible coupling for shafts. 3,512,375, 5-19-70, Cl. 64-7.
Madatron Corporation: *See—*
Hanbicki, Richard B., 3,506,873.
Hanbicki, Richard B., 3,545,674.
Madaus, Dr., & Co.: *See—*
Patt, Peter Wilhelm; and Vogel, Gunther Karl Wilhelm, 3,504,085.
Madden, Donald A.: *See—*
Madden, Richard; and Madden, Donald A.,3,516,596.
Madden, Francis R. Combination brush holder, water container, and paint tray for artists. 3,532,222, 10-6-70, Cl. 211-65.
Madden, James E.: *See—*
Barber, Ronald N.; and Madden, James E.,3,521,997.
Madden, Richard A.: *See—*
DeRose, Ralph A.; Mottl, Anton J.; and Madden, Richard A.,3,516,142.
Madden, Richard; and Madden, Donald A. Citrus fruit and vegetable shipping container. 3,516,596, 6-23-70, Cl. 229-42.
Madden, Theodore R.; Hopkins, George H., Jr.; and Chessman, Michael, to Ampex Corporation, mesne. Method and apparatus for measuring subsurface electrical impedance utilizing first and second successively transmitted signals at different frequencies. 3,525,037, 8-18-70, Cl. 324-7.
Madden, Thomas G., to Maco Industries, Inc. Cotton picking spindle. 3,525,202, 8-25-70, Cl. 56-50.
Madden, William A. Illuminated hair ornament. 3,501,628, 3-17-70, Cl. 240-6.4
Maddex, Phillip J.; and Skaarup, Ole. Self-discharging bulk cargo vessel. 3,536,208, 10-27-70, Cl. 214-15.
Maddison, John C., to Plessey Company Limited, The. Thin film circuits. 3,503,796, 3-31-70, Cl. 117-212.
Maddock, Maldwin J.: *See—*
Banchink, Ira N.; Sze, Morgan C.; and Maddock, Maldwin J.,3,527,565.
Maddox, Billy M.: *See—*
Raether, Edward O.; and Maddox, Billy M.,3,495,248.
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Maier, Ludwig, to Monsanto Company. Disecondary biphosphine disulfides and the preparation thereof. 3,496,235, 2-17-70, Cl. 260-606.5

Maier, Ludwig, to Monsanto Chemical Limited. Process for preparing organic thiophosphorus compounds. 3,504,025, 3-31-70, Cl. 260-543.

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Maier, Ludwig, to Monsanto Company. Process for exchanging halogen for hydrocarbon radicals in compounds containing a thiophosphorus halide group. 3,518,303, 6-30-70, Cl. 260-543.

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Maier, Ludwig, to Monsanto Company. Methylene bis(dialkyl phospines). 3,518,312, 6-30-70, Cl. 260-606.5

Maier, Ludwig, to Monsanto Company. Phosphinites, phosphine oxides and process for preparing. 3,532,774, 10-6-70, Cl. 260-928.

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Maitrot, Raymond Desire. Construction element of phenolic resin and process for its manufacture. 3,536,575, 10-27-70, Cl. 161-159.

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Majima, Hideyasu, to Kabushiki Kaisha Hitachi Seisakusho. Method and system for detection of pattern features. 3,525,981, 8-25-70, Cl. 340-146.3

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Majkrzak, Charles P., to International Telephone and Telegraph Corporation. Oceanographic data-collecting buoy arrangement. 3,506,841, 4-14-70, Cl. 290-2.

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Makino, Masao; and Tesaki, Muneaki, to Kobe Steel Ltd. Method of making fluted drill and the like. 3,504,575, 4-7-70, Cl. 76-108.

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3-(3-Hydroxy-3-phenyl-butylamino)propiophenones. 3,525,771, 8-25-70, Cl. 260-570.5

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Malec, Robert E., to Ethyl Corporation. Synthetic ester lubricants containing trihydrocarbyl tin sulfides and phenothiazines. 3,511,782, 5-12-70, Cl. 252-46.4

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Malhotra, Sudarshan K., to Dow Chemical Company, The. Oxidation of the enamine of α,β- unsaturated ketones. 3,514,475, 5-26-70, Cl. 260-397.2

Malicheff, Andre, to Glaverbel S.A. Method and apparatus for the drawing of flat glass. 3,533,250, 10-13-70, Cl. 65-84.

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Malinski, Sylvester William. Method and apparatus for mounting and removing pneumatic tires. 3,489,198, 1-13-70, Cl. 157-1.17

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Maljuk, Jury Ivanovich; Shidlovsky, Vladimir Georgievich; and Zelinsky, Alexandr Viktorovich. Indicator-converter. 3,500,392, 3-10-70, Cl. 340-381.

Malk, David J.; Aday, Roy W., Jr.; Van Slooten, Nico Jan; Greene, Robert L.; Petersen, Arne J.; and Matsuyama, George, to Beckman Instruments, Inc. Apparatus for electrochemical analysis. 3,505,197, 4-7-70, Cl. 204-195.

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Mallander, Richard G., to Shell Oil Company. Method of mining thick coal seams. 3,525,551, 8-25-70, Cl. 299-11.

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Mallener, Paul, to Schloemann Aktiengesellschaft. Continuous-casting mold assembly. 3,528,483, 9-15-70, Cl. 164-260.

Mallery, Paul, to Bell Telephone Laboratories, Incorporated. Precision electric welder. 3,519,782, 7-7-70, Cl. 219-78.

Mallett, Alfred L., to Seeburg Corporation, The. Voltage selection arrangement wherein same contacts switch selectable D.C. pitch potential and constant A.C. for control function. 3,511,917, 5-12-70, Cl. 84-1.01

Mallette, Thomas E., to International Business Machines Corporation. Positive seating reel latching apparatus. 3,532,286, 10-6-70, Cl. 242-68.3

Mallina, Rudolph F., to Codman & Shurtleff, Inc. Atraumatic clamp. 3,515,139, 6-2-70, Cl. 128-322.

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Mallinson, William Arthur, to Ferranti Limited. Data transmission systems. 3,534,349, 10-13-70, Cl. 340-198.

Mallonee, William C.; and Harris, Henry E., to Monsanto Company. Gas activated bonding of polyamides. 3,516,900, 6-23-70, Cl. 161-150.

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Manasevit, Harold M., to North American Rockwell Corporation. Single crystal silicon on beryllium oxide. 3,515,576, 6-2-70, Cl. 117-106.
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Mancini, Derek, to Portion Containers, Inc. Apparatus for filling and sealing cups. 3,527,020, 9-8-70, Cl. 53-282.
Mancini, Lloyd, to Berg Electronics, Inc. Crimping terminal for coaxial cable. 3,517,375, 6-23-70, Cl. 339-177.
Mancini, Ralph T., to Smith Kline & French Laboratories. Rodent feeder. 3,505,977, 4-14-70, Cl. 119-61.
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Mandal, Robert P., to Aerojet-General Corporation. Metal-semiconductor alloys for thin-film resistors. 3,545,967, 12-8-70, Cl. 75-134.
Mandel, Louis, to United States of America, Navy. Automatic microwave frequency measurement system. 3,541,444, 11-17-70, Cl. 324-78.
Mandel, Richard M. Conveyance with an extendable platform. 3,540,607, 11-17-70, Cl. 214-85.
Mandelkorn, Joseph, to United States of America, National Aeronautics and Space Administration. Method of attaching a cover glass to a silicon solar cell. 3,541,679, 11-24-70, Cl. 29-572.
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Mandino, Joseph J., to Mosley Electronics, Inc. Antenna mounting device. 3,545,148, 12-8-70, Cl. 52-110.

Mandler, Hans; and Weinzinger, Hans, to Vereinigte Osterreichische Eisen- und Stahlwerke Aktiengesellschaft. Strip sag gage in a pickling bath. 3,536,999, 10-27-70, Cl. 324-65.

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Manfredi, Daniel V., to United Aircraft Corporation. Method of manufacture of contoured face seals. 3,496,683, 2-24-70, Cl. 51-326.

Manfredi, Frank A. Fluid injecting apparatus for internal combustion engines. 3,528,225, 9-15-70, Cl. 55-258.

Manfredo, Joseph N.; Bridgnell, David G.; and Andersen, Soren K., to Garrett Corporation, The. Heat exchanger. 3,542,124, 11-24-70, Cl. 165-166.

Mangaly, Joseph, to General Time Corporation. Electronic counting or timekeeping system using glow discharge tube. 3,544,837, 12-1-70, Cl. 315-84.6

Mangan, Edmund L., to Bethlehem Steel Corporation. Multirange radiation thickness gauge. 3,524,063, 8-11-70, Cl. 250-83.3

Manganaro, Carl R.; and Nagle, Elliott V., to United States Steel Corporation. Arene-aldehyde resins and methods for making the same. 3,539,534, 11-10-70, Cl. 260-67.

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Mange, Franklin E.; Buriks, Rudolf S.; and Fauke, Allen R., to Petrolite Corporation. Process for controlling the molecular weight of ultra- high molecular weight oxyalkylene-containing polymers from alkylene oxides free of groups other than oxirane groups. 3,499,847, 3-10-70, Cl. 260-2.

Mange, Franklin E.; Buriks, Rudolf S.; and Fauke, Allen R., to Petrolite Corporation. Ultra high molecular weight oxirane polymers by polymerization with organometallic catalysts modified by nitro compounds. 3,532,644, 10-6-70, Cl. 260-2.

Mangel, John J. Aerosol dispenser controlled by permanent magnet. 3,542,248, 11-24-70, Cl. 222-70.

Mangels, Theodore F., to Ocean Science & Engineering, Inc. Pressure vessel wall penetrator. 3,491,198, 1-20-70, Cl. 174-152.

Mangiaracina, Charles J.; and Meyer, Charles B., to RCA Corporation. Optical multiplexing apparatus. 3,510,657, 5-5-70, Cl. 250-201.

Mangin, Francois, to Institut de Recherches de la Siderurgie Francaise. Apparatus for taking samples from a bath of molten material. 3,490,289, 1-20-70, Cl. 73-423.

Mangini, Angelo; and Tundo, Antonio, to Aziende Colori Nazionali Affini ACNA S.p.A. Azo dyestuffs for polyamide fibers containing thiopenedioxide group. 3,491,083, 1-20-70, Cl. 260-162.

Mangini, Angelo; Tundo, Antonio; Bonini, Bianca Flavia; Rossetti, Marta; and Mazzanti, Germana, to Aziende Colori Nazionali Affini ACNA S.p.A. Reactive azo dyestuffs containing a thiophene dioxide. 3,527,745, 9-8-70, Cl. 260-146.

Mangini, Angelo; Tundo, Antonio; Bonini, Bianca Flavia; and Rossetti, Marta, to Aziende Colori Nazionali Affini ACNA S.p.A. Reactive azo dyestuffs containing a tolylsulfonyl- methylene -oxytriazine group. 3,527,747, 9-8-70, Cl. 260-153.

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Mango, Joseph R., to Singer Company, The. Sabre saws with 360° swivel saw bars. 3,494,391, 2-10-70, Cl. 143-68.

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Mangum, Grafton F., to Thiokol Chemical Corporation. Injector assembly for eliminating the smoke trail of a solid propellant rocket motor. 3,491,539, 1-27-70, Cl. 60-251.

Mangum, Raymond W., to Hammit & Mangum Service Company, Inc. Method and apparatus for determining productive characteristics of well formation. 3,495,438, 2-17-70, Cl. 73-19.

Mangus, Donald J. Roller skiis. 3,512,796, 5-19-70, Cl. 280-11.22

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Maniere, Maurice Auguste Francois Joseph; and Marotte, Pierre, to Lignes Telegraphiques et Telephoniques. Digital distortion measurement apparatus for isochronous coded telegraph and data signals. 3,496,462, 2-17-70, Cl. 324-68.

Maniero, Daniel A.; Kemeny, George A.; and Bruning, Armin M., to Westinghouse Electric Corporation. Apparatus for removing defects from slabs and blooms of steel and other metals. 3,538,297, 11-3-70, Cl. 219-121.

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Manion, Francis M., to United States of America, Army. Tuned and regenerative flueric amplifiers. 3,513,867, 5-26-70, Cl. 137-81.5

Manion, Jean P.; and Davies, Daniel J., to Allis-Chalmers Manufacturing Company. Apparatus for magnetic stirring of discharge plasma in chemical synthesis. 3,516,921, 6-23-70, Cl. 204-311.

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Manjikian, Serop, to Universal Water Corporation. Production of semipermeable membranes directly on the surfaces of permeable support bodies. 3,544,358, 12-1-70, Cl. 117-63.

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Mankarious, Ramzy G.; Bower, Robert W.; and Ying, Robert S., to Hughes Aircraft Company. Ion-implanted impatt diode. 3,509,428, 4-28-70, Cl. 317-234.

Mankarious, Ramzy G.; and English, David L., to Hughes Aircraft Company. Impatt diode. 3,510,734, 5-5-70, Cl. 317-234.

Manke, Gustave L., to Veeder Industries, Inc. Operating control mechanism for resettable registers. 3,523,642, 8-11-70, Cl. 235-144.

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Manko, Howard H., to Alpha Metals, Inc. Method of making a microminiature connector. 3,517,439, 6-30-70, Cl. 29-630.

Manko, William H.; and May, Leonard, to Keuffel & Esser Company. Photographic reproduction materials. 3,511,658, 5-12-70, Cl. 96-68.

Mankowsky, Vincent J.; and Carrieri, Louis F., to U.S. Industries, Inc. Clutch and brake with telescoping pistons. 3,494,450, 2-10-70, Cl. 192-18.

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Manley, Brian William, to U.S. Philips Corporation. Image intensifier devices. 3,491,233, 1-20-70, Cl. 315-10.

Manley, Brian William, to U.S. Philips Corporation, mesne. Image intensifiers. 3,497,759, 2-24-70, Cl. 315-11.

Manley, Brian William; and Adams, John, to U.S. Philips Corporation, mesne. Electronic image intensifier with secondary emissive multiplication and an electron-optical focussing system between a photocathode and the secondary emissive electrode. 3,528,101, 9-8-70, Cl. 313-95.

Manley, Flavious E., Jr. Compressor valve. 3,536,094, 10-27-70, Cl. 137-512.1

Manley, John C., to Corning Glass Works. Encapsulated electrical capacitor. 3,496,435, 2-17-70, Cl. 317-258.

Manley, Roger E. W., to Blease Anaesthetic Equipment Limited. Respiratory metering device. 3,499,438, 3-10-70, Cl. 128-145.6

Manley, Roger E. W., to Blease Anaesthetic Equipment Limited. Patient controlled respiratory apparatus. 3,503,393, 3-31-70, Cl. 128-145.6

Manley, Roger E. W., to Blease Medical Equipment Limited. Resuscitator. 3,547,116, 12-15-70, Cl. 128-145.8

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Mann, August C., to Westinghouse Electric Corporation. Contoured bars for banded commutators. 3,549,927, 12-22-70, Cl. 310-236.

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Mann, Freeman M., Jr.; and Carpenter, James H., Jr., to Carborundum Company, The. Suspended conveyor trolley handling device. 3,495,720, 2-17-70, Cl. 214-1.

Mann, Harold J., Jr. Tubing cutter. 3,507,035, 4-21-70, Cl. 29-564.

Mann, Herbert L.; and Pena, Ernesto, to Firstamerica Games, Inc. Bullfighting board game apparatus. 3,511,504, 5-12-70, Cl. 273-134.

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Manning, Charles R., Jr.; Bales, Thomas T.; Lisagor, Wayne B.; and Seyffert, Marion B., to United States of America, National Aeronautics and Space Administration. Controlled glass bead peening. 3,531,964, 10-6-70, Cl. 72-53.

Manning, David T.; and Sousa, Anthony A., to Union Carbide Corporation. Pesticidal 2-trihalomethylbenzothiazoles. 3,513,237, 5-19-70, Cl. 424-270.

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Manning, Robert E., to Sandoz-Wander, Inc.Imidazo[1,2-c]thiazoles. 3,547,939, 12-15-70, Cl. 260-306.7

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Manning, William F., to Mobil Oil Corporation. Submerged storage and floating terminal loading assembly. 3,519,034, 7-7-70, Cl. 141-387.

Manning, William F., to Mobil Oil Corporation. Apparatus for transporting fluids between a submerged storage tank and a floating vessel. 3,519,036, 7-7-70, Cl. 141-387.

Manning, William F., to Mobil Oil Corporation. Apparatus for transporting fluids between a submerged storage tank and a floating terminal. 3,535,883, 10-27-70, Cl. 61-46.

Manning, William F., to Mobil Oil Corporation. Subsea satellite foundation unit and method for installing a satellite body therewithin. 3,545,539, 12-8-70, Cl. 166-0.5

Manning, William H., Jr.; and Theriot, Eugene J., to Bell Telephone Laboratories, Incorporated. Strip transmission line diode switch. 3,538,465, 11-3-70, Cl. 333-97.

Manning, William O., to Holley Carburetor Company. Multistage carburetor. 3,512,510, 5-19-70, Cl. 123-127.

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Mansfield, John Rickard, to Imperial Chemical Industries Limited. Oxidation process. 3,546,082, 12-8-70, Cl. 204-72.

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Manson, Roger A.; and Dytrt, Joseph F., to United States of America, Navy. Method of electroless nickel plating and plating baths therefor. 3,490,924, 1-20-70, Cl. 106-1.

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Mansson, Ivar Martin, to Stal Laval Finspong. Supply line couplings for a power medium between supply lines and a turbine. 3,520,633, 7-14-70, Cl. 415-134.

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Manton, Stanley Michael, to Lucas, Joseph, (Industries) Limited. Fluid pressure operable pumping apparatus. 3,516,763, 6-23-70, Cl. 417-403.

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Marans, Nelson S., to Grace, W. R., & Co. Polyesters, polyamides, and polyester-amides of mixtures of nitrilotriacetic and N-(acetamide)- iminodiacetic acids. 3,515,747, 6-2-70, Cl. 260-482.

Marans, Nelson S.; and Jaffe, Fred, to Grace, W. R., & Co. Preparation of polyoxymethylene using high energy radiation. 3,518,177, 6-30-70, Cl. 204-159.21

Marans, Nelson S.; and Olfky, Stephen J., to Grace, W. R., & Co. Crosslinked polyacrylamide foam. 3,511,764, 5-12-70, Cl. 204-159.21

Marans, Nelson S.; and Wessells, Forest A., to Grace, W. R., & Co. Method of making high density polyethylene foam. 3,501,428, 3-17-70, Cl. 260-2.5

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Marcinkowsky, Arthur E.; Johnson, James S.; Kraus, Kurt A.; and Kuppers, James R., to United States of America, Atomic Energy Commission. Hyperfiltration method of removing organic solute from aqueous solutions. 3,537,988, 11-3-70, Cl. 210-23.

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Marcovecchio, Joseph; and Mitteldorf, Arthur J., to Spex Industries, Incorporated. Shutter and slit control apparatus for optical systems. 3,489,485, 1-13-70, Cl. 350-271.

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Marcovitch, Jacob, to Rotary Profile Anstalt. Profiling of solid cylindrical workpieces. 3,495,428, 2-17-70, Cl. 72-91.

Marcovitch, Jacob, to Rotary Profile Anstalt. Profiling of annular workpieces. 3,498,095, 3-3-70, Cl. 72-87.

Marcovitch, Jacob, to Rotary Profile Anstalt. Fabrication of articles by rolling. 3,503,237, 3-31-70, Cl. 72-80.

Marcovitch, Jacob, to Rotary Profile Anstalt. Manufacture of tubes. 3,503,238, 3-31-70, Cl. 72-96.

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Marcus, Erich, to Union Carbide Corporation. Preparation of acetoacetic esters. 3,513,189, 5-19-70, Cl. 260-483.

Marcus, Erich; and MacPeek, Donald L., to Union Carbide Corporation. 1-Hydroxymethyl-2-hydroxyethylcyclopentane. 3,506,723, 4-14-70, Cl. 260-617.

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Mardiat, Arthur F., Sr. Safe delivery system and vehicle therefor. 3,497,093, 2-24-70, Cl. 214-515.

Marduel, Roger, to Rhone-Poulenc S.A. Apparatus for smoothing pressure variations in gaseous flow. 3,493,076, 2-3-70, Cl. 181-57.

Mare, Ernest, 10% to Stuart, John Pirie Brander. Means for carrying out gas scrubbing operations. 3,524,631, 8-18-70, Cl. 261-112.

Marean, Dale F. Rotary engine. 3,498,271, 3-3-70, Cl. 123-13.

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Marek, Cywinski; and Jerzy, Mencel, to Przemyslowy Institut Maszyn Rolniczych. Automatic digital fuel indicator, particularly for car. 3,537,302, 11-3-70, Cl. 73-114.

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Marenco, Mario, to Nuova San Giorgio S.p.A. Automatic spinning machine having a device for the automatic doffing of the bobbins and replacing of the tubes. 3,550,368, 12-29-70, Cl. 57-52.

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Marforio, Nerino, to S.p.A. Virginio Rimoldi & C. Device for simultaneously cutting the sewing threads in a sewing machine. 3,489,115, 1-13-70, Cl. 112-252.

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Marforio, Nerino, to Virginio Rimoldi & C., S.p.A. Thread cutting device for sewing machines. 3,532,065, 10-6-70, Cl. 112-252.

Marforio, Nerino, to S.p.A. Virginio Rimoldi & C. Lubrication warning device for sewing machines. 3,536,866, 10-27-70, Cl. 200-33.

Marforio, Nerino, to S.p.A. Virginio Rimoldi & C. Pneumatic drive system for thread cutting devices for sewing machine. 3,541,982, 11-24-70, Cl. 112-219.

Marg, Charles Morton. Gun bearer. 3,498,511, 3-3-70, Cl. 224-1.

Margaira, Rinaldo, to Fiat Societa per Azioni. Alternating current generator. 3,517,233, 6-23-70, Cl. 310-68.

Margaretos, David: *See—*
Schena, Richard A.; and Margaretos, David,3,542,287.

Margarit, Traian: *See—*
Anastasiu, Eugeniu Vasile; and Margarit, Traian,3,538,561.

Margason, Lester L.: *See—*
Burgman, Jerome A.; and Margason, Lester L.,3,510,393.

Margavio, Matthew F.: *See—*
Murphy, Alton L.; Welch, Clark M.; Margavio, Matthew F.; and Cooper, Albert S., Jr.,3,498,739.

Margen, Peter Heinrich Erwin; and Froman, Karl Goran Ernst, to Aktiebolaget Atomenergi. Nuclear power plant containing at least one light water nuclear reactor and one heavy water nuclear reactor. 3,513,070, 5-19-70, Cl. 176-31.

Margereson, Gregory John: *See—*
Bennison, Michael Newstead; and Margereson, Gregory John,3,517,630.

Margerum, John D., to Hughes Aircraft Company. Ultraviolet hardening of photosensitized polyacrylamide and products. 3,549,366, 12-22-70, Cl. 96-35.1

Margeson, Theodore M.; and Denny, Hugh W., said Denny, Hugh W. assor to said Margeson, Theodore M. Electric selective control circuit. 3,515,891, 6-2-70, Cl. 307-10.

Margetts, Hugh Grenville, to Girling Limited. Pistons. 3,532,030, 10-6-70, Cl. 92-208.

Margetts, Hugh Grenville, to Girling Limited. Brake pressure control valves. 3,545,814, 12-8-70, Cl. 303-6.

Margola, Gianni B., to Societe Ceramica Italiana Richard-Ginori S.p.A. Glaze and body compositions for the manufacture of vitreous china flatware by a fast single firing process. 3,501,321, 3-17-70, Cl. 106-45.

Margolien, David H., to Unitrode Corporation. High power stud mounted diode. 3,549,958, 12-22-70, Cl. 317-234.

Margolies, Marvin H.: *See—*
Mann, Seymour H.; and Margolies, Marvin H.,3,506,004.

Margolin, Jury Nosonovich: *See—*
Gusyatinsky, Igor Alexandrovich; and Margolin, Jury Nosonovich,3,544,899.

Margolis, Ely S.: *See—*
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Margolis, Joseph M., to General Electric Company. Aqueous binder with adherence additive for lamp phosphor coating. 3,551,180, 12-29-70, Cl. 117-33.5

Margolis, Joseph. Clutch purse with changeable covers. 3,536,116, 10-27-70, Cl. 150-28.

Margolis, Marjorie: *See—*
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Margon Corporation: *See—*
Samo, Harvey W., 3,531,893.
Samo, Harvey W., 3,550,315.

Margot, Alfred; and Gallay, Jean-Jacques, to Geigy Chemical Corporation. Anthelmintic compositions containing benzoylethyl quaternary ammonium compounds and a method therefor. 3,527,870, 9-8-70, Cl. 424-329.

Margot, Alfred; and Gallay, Jean-Jacques, to Geigy Chemical Corporation. Benzoylethyl quaternary ammonium compounds as anthelmintic agents. 3,528,985, 9-15-70, Cl. 260-293.4

Margot, Alfred; and Kocher, Clemens, to Geigy, J. R., A.G. Methods for controlling nematodes with compositions containing diazinon. 3,492,404, 1-27-70, Cl. 424-200.

Marguelisch, Arthur. Hinging device of a leaf on its frame. 3,488,795, 1-13-70, Cl. 16-147.

Marguerite Curtice Stone: *See—*
Engle, Homer A., 3,495,209.

Margulies, Joel. Fish lures. 3,497,985, 3-3-70, Cl. 43-35.

Margulis, Simona; and Shorr, Leonard M., to Israel Mining Industries-Institute for Research and Development. Polymers and copolymers of allyl fluoride. 3,524,839, 8-18-70, Cl. 260-92.1

Margulius, Harry. Parallel binary magnetic addition system by counting. 3,511,978, 5-12-70, Cl. 235-175.

Marhanka, Frank D., to Harting, E. W., Manufacturing Company. Bowl-attaching duct member for a hair dryer. 3,512,809, 5-19-70, Cl. 285-189.

Mariahazy, Andrea E.: *See—*
Waldman, Milton M.; and Mariahazy, Andrea E.,3,505,221.

Marianelli, Luigi. Continuous-flow filter for extruders and similar machines for processing plastic materials. 3,503,096, 3-31-70, Cl. 18-12.

Mariani, Brunello; and Basaglia, Luigi, to Ferrania, S.p.A. Silver halide emulsions containing 2-amino imidazoles as fog inhibitors. 3,511,663, 5-12-70, Cl. 96-109.

Mariani, Remo, to Dale Electronics, Inc. A.C. motor. 3,497,738, 2-24-70, Cl. 310-78.

Mariani, Remo, to Thomas & Betts Co., The. Dispenser for multiple marker tapes. 3,502,252, 3-24-70, Cl. 225-33.

Mariani, Remo, to Dale Electronics, Inc. Electromagnetically displacing a shaft in stepwise increments. 3,530,346, 9-22-70, Cl. 318-123.

Mariani, Remo, to Thomas & Betts Corporation. Dispenser for multiple material webs. 3,547,327, 12-15-70, Cl. 225-38.

Mariano, Anthony N., to Kennecott Copper Corporation. Method for determining crystallographic orientation. 3,504,178, 3-31-70, Cl. 250-51.5

Mariash, Stephen. Field marker actuating device. 3,493,054, 2-3-70, Cl. 172-130.

Maricelli, James J., to Schlumberger Technology Corporation. Method and apparatus for enhancing well logging signals by the use of multiple measurements of the same formation charactristic. 3,521,154, 7-21-70, Cl. 324-10.

Marich, Frederick. Reciprocating vibratory massaging device. 3,494,353, 2-10-70, Cl. 128-36.

Marie de Jong, Eduard B., to Technicon Corporation. Linear output photoelectric circuit with photo- electric and logarithmic cells in series. 3,531,645, 9-29-70, Cl. 250-210.

Marie, Gerard: *See—*
Angel, Yves; Marie, Gerard; and Geneve, Raoul,3,520,589.

Marie, Guy J. J., to Societe d'Etudes pour Parois Filtrantes Parfil. Filtering diaphragms. 3,540,598, 11-17-70, Cl. 210-483.

Marie, Robert, to Dana Corporation. Vehicle speed control device. 3,504,754, 4-7-70, Cl. 180-108.

Marie, Robert, to Dana Corporation. Top speed limiting device. 3,547,216, 12-15-70, Cl. 180-107.

Marien, Kenneth J., to Square D Company. Coil and stationary magnet mounting for an electromagnetically operated device. 3,501,723, 3-17-70, Cl. 335-202.

Marien, Kenneth J., to Square D Company. Coil and magnet mounting structure for an electromagnetically operated device. 3,525,961, 8-25-70, Cl. 335-202.

Marienbakh, Lev Mikhailovich: *See—*
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Marietta, Cesar: *See—*
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Marietta, James W., Jr. Casing clip. 3,541,647, 11-24-70, Cl. 24-30.5

Marietta, James W., Jr.: *See—*
Tipper, Maynard J. G.; and Marietta, James W., Jr.,3,499,259.

Marin, Emil. Tree prop. 3,516,200, 6-23-70, Cl. 47-43.

Marin, Gilbert Joseph; and Rio, Andre Louis Armand, to Rhone-Poulenc S.A.Polymethanes prepared from N,N'-bis- (hydroxyorgano) pyromellimides. 3,513,131, 5-19-70, Cl. 260-75.

Marin, Mario J., to Pitney-Bowes, Inc. Sheet folding apparatus. 3,495,818, 2-17-70, Cl. 270-68.

Marin, Paul J. Method for forming improved concrete structure. 3,518,331, 6-30-70, Cl. 264-35.

Marinaccio, Paul J.: *See—*
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Marinak, Michael J., to Dow Chemical Company, The. Process for the polymerization of olefins. 3,491,073, 1-20-70, Cl. 260-80.78

Marinak, Michael J., to Dow Chemical Company, The. Vapor phase production of perchlorinated pyridine and cyanopyridines from cyano-substituted cyclo- butanes and cyclobutenes. 3,532,701, 10-6-70, Cl. 260-290.

Marine Colloids, Inc.: *See—*
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Moirano, Arthur L., 3,499,768.
Renn, Donald W.; and Mueller, George P., 3,527,712.

Marine Midland Trust Company of Western New York: *See—*
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Marine Space Enclosures, Inc.: *See—*
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Marine Swimming Pool Equipment Company: *See—*
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Marinelli, Charles P.: *See—*
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Marino, Edward M.: *See—*
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Marino, Francis C.: *See—*
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Marino, John A.: *See—*
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Marino, Joseph A., to United States of America, Navy. Contamination determination in a fluid system. 3,499,315, 3-10-70, Cl. 73-61.

Marino, Joseph; and Schaefer, William R., to Westinghouse Electric Corporation. Combination of solderless terminal assembly and semiconductor. 3,519,895, 7-7-70, Cl. 317-234.

Marino, Joseph: *See—*
New, Thorndike C.; Kisinko, Paul M.; Ernick, Frederick G.; and Marino, Joseph,3,507,714.

Marino, Nicholas A., to Sears, Roebuck and Co. Panty girdle. 3,513,853, 5-26-70, Cl. 128-528.

Marion, Andre F.; and Chamness, Leland D., to Singer Company, The. Tape feed. 3,489,361, 1-13-70, Cl. 242-55.

Marion, Andre F.; Chamness, Leland D.; and Steward, Kenneth H., to Singer Company, The. Ink transfer roller with ink supply interrupter for a type wheel. 3,526,309, 9-1-70, Cl. 197-150.

Marion, Charles P., to Texaco Development Corporation. Scrubbing nozzle for removing unconverted carbon particles from gas. 3,524,630, 8-18-70, Cl. 261-76.

Marion, Donald L.; Hall, Robert H.; and Rusnack, William C., to Sinclair Research, Inc. Package stable, low viscosity, high solids, thermosetting coating compositions with latent curing catalyst. 3,528,935, 9-15-70, Cl. 260-23.

Marion, George Francis: *See—*
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Marion Power Shovel Company, Inc.: *See—*
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Baron, George B., 3,501,034.
Baron, George B., 3,512,597.
Sankey, Edwin W.; and Bergmann, Robert W., 3,541,710.

Marion, Thomas E., to Maryland Cup Corporation. Container capping machine. 3,507,093, 4-21-70, Cl. 53-141.

Mariotti, Donald J.: *See—*
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Marlton Limited: *See—*
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Marjoram, Ernest B.: *See—*
Craven, Jack L.; and Marjoram, Ernest B.,3,550,882.

Mark, Arthur M.; and Mehltretter, Charles L., to United States of America, Agriculture. Method for the preparation of amylose acetate dispersions. 3,549,619, 12-22-70, Cl. 260-233.5

Mark, John Richard, to Marconi Company Limited, The. Automatic tracking radio equipments. 3,530,471, 9-22-70, Cl. 343-118.

Mark, John T.: *See—*
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Mark, Joseph A. Golf swing practice means. 3,489,416, 1-13-70, Cl. 273-191.

Mark Products, Inc.: *See—*
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Mark, Victor; and Zengierski, Leon, to Hooker Chemical Corporation. Substituted perhalocoumalins and derivativs thereof. 3,528,995, 9-15-70, Cl. 260-343.5

Markant, Henry P.; Shah, Indravadan S.; and Soltys, Norbert, to Babcock & Wilcox Company, The. Method of and apparatus for analyzing a chemical composition. 3,537,820, 11-3-70, Cl. 23-230.

Markarian, Armen: *See—*
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Markarian, Armen; and Skuba, Thadeus, to Markarian, Armen. Embalming machine. 3,528,146, 9-15-70, Cl. 27-24.

Markarian, Mark, to Sprague Electric Company. Flat pack capacitor. 3,514,678, 5-26-70, Cl. 317-261.

Markel Electric Products, Inc.: *See—*
Grant, Cuthbert, 3,526,958.

Markel, Kurt; Blumer, Erwin; Kunzmann, Gunter; Steinberg, Jurgen; and Stiller, Dieter, to VEB Chemiefaserwerk Schwarza 'Wilhelm Pieck'. Apparatus for continuously polymerizing lactams. 3,524,729, 8-18-70, Cl. 23-285.

Marker, Delbert E.: *See—*
Jewitt, Harold S.; and Marker, Delbert E.,3,521,281.

Marker, Edwin M., Jr., to TRW Inc. Variable coupling tuning coil. 3,495,201, 2-10-70, Cl. 336-90.

Marker, Hannes: *See—*
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Berchtold, Ludwig, 3,527,468.
Huss, Otto, 3,508,761.
Marker, Hannes; and Jungkind, Roland, 3,550,996.
Petz, Fritz, 3,489,425.
Weiss, Siegfried, 3,515,402.

Marker, Hannes. Heel holder for safety ski bindings. 3,490,780, 1-20-70, Cl. 280-11.35

Marker, Hannes. Toe iron for safety ski bindings which is suitable for downhill and cross-country skiing. 3,490,781, 1-20-70, Cl. 280-11.35

Marker, Hannes. Safety release device for ski bindings. 3,533,370, 10-13-70, Cl. 116-67.

Marker, Hannes. Safety ski binding. 3,540,749, 11-17-70, Cl. 280-11.35

Marker, Hannes; and Jungkind, Roland, to Marker, Hannes. Heel holding device for safety ski bindings. 3,550,996, 12-29-70, Cl. 280-11.35

Marker, Hannes; and Payrhammer, Bernd, said Payrhammer assor to said Marker. Heel-holding device for safety ski bindings. 3,512,797, 5-19-70, Cl. 280-11.35

Markert, Ferdinand; Schunck, Michael; and Weber, Georg, to Texaco Development Corporation. Oxidation process with improved waste heat boiler. 3,551,347, 12-29-70, Cl. 252-373.

Markert, Gerdhard: *See—*
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Markert, Gerhard, to Rohm & Haas G.m.b.H. Graft polymers and preparation thereof. 3,511,894, 5-12-70, Cl. 260-875.

Markert, Gerhard: *See—*
Lehmann, Klaus; Markert, Gerhard; and Rothgang, Gerhart W. E.,3,520,970.

Markert, Herman R., to Sonoco Products Company. Easy opening end closure for containers. 3,536,227, 10-27-70, Cl. 220-54.

Markert, John G.: *See—*
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Markey, Walter, to Willcox & Gibbs, Inc. Stacking package. 3,493,107, 2-3-70, Cl. 206-65.

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Copeland, Herbert R.; George, McLean; and Markezich, Anthony R.,3,507,149.

Markgraf, Zsigmond, to Wickman Machine Tool Sales Limited. Turning machines. 3,534,643, 10-20-70, Cl. 82-32.

Markgraflich Badische Industrieverwaltung GmbH & Co.: *See—*
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Markham, Aaron E.; and Blackmore, Kenneth A. E., to Georgia-Pacific Corporation. Drilling fluid composition. 3,544,460, 12-1-70, Cl. 252-8.5

Markham, Odell C.; and Ferguson, Alan C. Parachute-protected aircraft. 3,499,623, 3-10-70, Cl. 244-139.

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Markillie, John H., to Upjohn Company, The. Isoxazolo [5,6-b] pyridines, 5,6-polymethyleneisoxazolo [5,4-b] pyridines and processes therefor. 3,541,101, 11-17-70, Cl. 260-288.

Markin, Anatoly Alexeevich: *See—*
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Markin, Joseph; and Sobel, Alan, to Zenith Radio Corporation. Automatic gain control. 3,497,622, 2-24-70, Cl. 179-1.

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Markley, Finley W.: *See—*
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Marko, Adolf R., to United States of America, Air Force. Signal converter to display physiological signals on conventional television receivers. 3,530,236, 9-22-70, Cl. 178-6.8

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Markovitz, Mark, to General Electric Company. Borosilicone materials. 3,519,670, 7-7-70, Cl. 260-448.2

Markovz, Mark, to General Electric Company. Silicone modified borate compositions. 3,519,671, 7-7-70, Cl. 260-448.2

Markowski, Stanley J., to United Aircraft Corporation. Flow separation control in an exhaust deflector. 3,490,236, 1-20-70, Cl. 60-204.
Markowski, Stanley J., to United Aircraft Corporation. Curved exhaust deflection system. 3,527,408, 9-8-70, Cl. 239-265.27
Markowski, Stanley J., to United Aircraft Corporation. Yaw control in an aft hood deflector. 3,531,940, 10-6-70, Cl. 60-230.
Markowski, Walter J.: *See*—
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Markowx, Karl Heinz. Device for transmitting flows. 3,510,156, 5-5-70, Cl. 285-132.
Marks, Alvin M. Method and apparatus for suppressing fumes with charged aerosols. 3,503,704, 3-31-70, Cl. 23-2.
Marks, Alvin M. Dipolar electro-optic structures. 3,512,876, 5-19-70, Cl. 350-267.
Marks, Alvin M. Charged aerosol power conversion device and method. 3,518,461, 6-30-70, Cl. 310-10.
Marks, Alvin M. Smokestack aerosol gas purifier. 3,520,662, 7-14-70, Cl. 23-284.
Marks, Alvin M. Forced closure dipolar electro-optic shutter and method. 3,527,525, 9-8-70, Cl. 350-267.
Marks, Bruce G.: *See*—
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Marks, Craig, to General Motors Corporation. Rotary engine with means for causing mixture turbulence. 3,487,815, 1-6-70, Cl. 123-8.
Marks, George E., to Sperry Rand Corporation. Electromagnetic radiation deflection apparatus employing electro-optic or electro-acoustical devices. 3,539,244, 11-10-70, Cl. 350-160.
Marks, Lillian I. Swimming cap with rigid dome. 3,503,076, 3-31-70, Cl. 2-68.
Marks, Louis W., to General Electric Company. Compensating means for unbalance in cascade type instrument potential transformers. 3,532,963, 10-6-70, Cl. 323-48.
Marks, Louis W., to General Electric Company. Load compensated instrument potential transformer of improved accuracy. 3,532,964, 10-6-70, Cl. 323-60.
Marks, Morton: *See*—
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Marks, Ronald H.; Goodman, Lawrence R.; and Stokes, Luther E., to Enterprise Incorporated. Method and apparatus for knitting fabrics. 3,507,130, 4-21-70, Cl. 66-169.
Marks, Theodore, to American Technical Machinery Corporation. Pole drilling machine. 3,548,686, 12-22-70, Cl. 77-22.
Markson, Morley. Multiple image projection system. 3,502,402, 3-24-70, Cl. 352-69.
Markstems, Inc.: *See*—
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Markulin, Michael H.; and Basto, Julio H., to Technical Coatings Co. Adhesive concentrate for improving adhesion of coating compositions to base coated metal substrates, and cans or can components coated therewith. 3,497,466, 2-24-70, Cl. 260-21.
Markus, Harold; and Lipson, Samuel. Production of cellular metals. 3,523,766, 8-11-70, Cl. 29-180.
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Marlard, Andre, to Rhone-Poulenc S.A. Process for the production of diphenols. 3,514,490, 5-26-70, Cl. 260-621.
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Marlette Homes, Inc.: *See*—
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Marley Company, The: *See*—
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Marley, Daniel B. Milking claw protector. 3,512,504, 5-19-70, Cl. 119-14.54
Marley, David J., to Garrett Corporation, The. Linear self-acting bearing with conformable surface. 3,511,544, 5-12-70, Cl. 308-3.
Marley, Edward W., to Ferro Equipment Co. Automatic in-feed attachment for centerless grinders. 3,528,199, 9-15-70, Cl. 51-103.
Marlin, Glenn Adrian; McConnell, James Clifford; and Schmidt, Wilhelm Emil Albert, to Western Electric Company, Incorporated. Apparatus for assembling sealed contact switches. 3,539,323, 11-10-70, Cl. 65-139.
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Marlo Company, The: *See*—
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Marlow, Alfred S. Variable capacity fluid discharge device. 3,543,368, 12-1-70, Cl. 29-156.8
Marlow, Darrell W.; and Shum, John, Jr., to Olin Corporation. Valve. 3,536,100, 10-27-70, Cl. 137-625.47
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Marlow, Jerry R., to General Motors Corporation. Hydrostatic transmission with hydraulic centering actuator. 3,495,405, 2-17-70, Cl. 60-52.
Marlowe, Frank J., to RCA Corporation. Reduction of turn-on delay in liquid crystal cell. 3,503,672, 3-31-70, Cl. 350-160.
Marlowe, Harold. Ring package. 3,524,538, 8-18-70, Cl. 206-56.
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Maronde, Herbert, 1/2 to Foto, Robot, und Electronic G.m.b.H. & Co. KG. Photographic traffic monitoring device. 3,522,611, 8-4-70, Cl. 346-107.
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Maropis, Nicholas; Wilson, William A.; and Blaise, Herman T., to United States of America, National Aeronautics and Space Administration. Methods and apparatus employing vibratory energy for wrenching. 3,526,030, 9-1-70, Cl. 29-428.
Marosy, Andre. Coupling. 3,487,512, 1-6-70, Cl. 24-221.
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Marquette, Edmond R. T. One-piece blanket with halves of different warmth characteristics. 3,508,284, 4-28-70, Cl. 5-334.
Marquette, Edmond R. T. Blanket with multiple panels of varying warmth characteristics. 3,508,285, 4-28-70, Cl. 5-334.
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Marshall, John K. Adjustable jib sheet block. 3,534,700, 10-20-70, Cl. 114-204.
Marshall, John L., Jr.; and Bray, John R., to Monsanto Company. Spinneret capillary inspection apparatus. 3,508,432, 4-28-70, Cl. 73-37.8
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Marshall, William E., to University of Minnesota, The Regents of the. Nondiscriminating proteinase and the production thereof. 3,510,402, 5-5-70, Cl. 195-62.
Marshall, William J.; and Hanke, Albert R., to Du Pont de Nemours, E. I., and Company. Nickel coated flake pigments and methods for their preparation. 3,536,520, 10-27-70, Cl. 117-54.
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Martel, Jacques; Toromanoff, Edmond; and Huynh, Chanh, to Rousel-UCLAF. Colchicinic intermediates. 3,538,144, 11-3-70, Cl. 260-473.
Martel, Jean Claude, to Compagnie de Saint-Gobain. Method and apparatus for automatic severance of a moving sheet along a line inscribed therein. 3,489,909, 1-13-70, Cl. 250-219.
Martel, Robert W., to Xerox Corporation. Imaging apparatus. 3,504,969, 4-7-70, Cl. 355-16.
Martelee, Ghislain Antoine Jean-Marie, to Cockerill-Ougree-Providence. Traction vehicle with interchangeable bodies. 3,501,040, 3-17-70, Cl. 214-515.
Martelee, Ghislain Antoine Jean-Marie, to Cockerill-Ougree-Providence. Tilting device for ingots. 3,503,528, 3-31-70, Cl. 214-1.
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Marthe, Louis, to Societe Nationale des Petroles d'Aquitaine. Voltage to frequency converter. 3,505,614, 4-7-70, Cl. 332-9.
Marti, Fritz, to Portescap, Le Porte-Echappement Universel S.A. Bearing for a timepiece pivot. 3,500,632, 3-17-70, Cl. 58-140.
Marti, Raymond, to Patek Philippe S.A. Automatic and continuous time adjusting device for a clock. 3,530,663, 9-29-70, Cl. 58-23.
Martignoni, Pasquale; Morgan, Robert L.; Mc Clune, Lee F.; Nappier, Henry A.; and Cason, Charles M., III, to United States of America, Army. Apparatus for extremely rapid determination of ionization and appearance potentials in a mass spectrometer. 3,493,742, 2-3-70, Cl. 250-41.9
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Martin, Albert V., to Motorola, Inc. Reversible meter for displaying direct and reciprocal control information. 3,501,697, 3-17-70, Cl. 324-115.
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Martin, Allan E.; and Tutterrow, Jack N., to American Standard Inc. Forced draft boiler construction. 3,533,379, 10-13-70, Cl. 122-225.
Martin, Allen R., to General Instrument Corporation. Integrator circuit with retarded recovery time. 3,512,011, 5-12-70, Cl. 307-228.
Martin, Alma C. Rotary weeder or cultivator apparatus. 3,489,227, 1-13-70, Cl. 172-100.
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Martin, Annie S.: *See—*
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Martin, Clifford Miles. Vibratory massage apparatus. 3,547,109, 12-15-70, Cl. 128-33.
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Martin, Daniel W.; and Stein, John L., to Baldwin, D. H., Company. Electropiano with plural piezoelectric pickups on unitary acoustic rail. 3,519,721, 7-7-70, Cl. 84-1.14
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Martin, Donald L.; Olson, Oscar P.; and Hutchinson, William M., to Collins Radio Company. AM data detector with reference level responsive to input and detected data to produce comparison signal. 3,509,279, 4-28-70, Cl. 178-88.
Martin, Donald N., to Beckman Instruments, Inc. Sample capsule and filtering mechanism. 3,540,857, 11-17-70, Cl. 23-292.
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Martin, Elmore L., to Du Pont de Nemours, E. I., and Company. Synthesis of malononitriles and dimalononitriles and compounds produced therein. 3,504,001, 3-31-70, Cl. 260-396.
Martin, Elmore L., to Du Pont de Nemours, E. I., and Company. 2,5 Diisopropyl-p-xylylene diisocyanate. 3,542,839, 11-24-70, Cl. 260-453.
Martin, Emery T. Photosensitive automotive alarm device. 3,491,334, 1-20-70, Cl. 340-34.
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Martin, Ernest N. Irrigation system. 3,543,778, 12-1-70, Cl. 137-67.
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Martin, Erwin, to Siemens Aktiengesellschaft. Apparatus for automatic testing of electrical device by testing their characteristic curves for excess of tolerance zones. 3,543,148, 11-24-70, Cl. 324-57.
Martin, Erwin, to Siemens Aktiengesellschaft. Photo-electric apparatus for the measurement of electrical characteristics of circuit devices which are supplied during the measuring period with a varying electrical signal. 3,544,892, 12-1-70, Cl. 324-57.
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Martin, Francis C., Jr., to Ametek, Inc., mesne. Sweep oscillator unit employing digital feedback. 3,504,294, 3-31-70, Cl. 331-4.

Martin, Francis W., to Corning Glass Works. Method for glazing. 3,488,216, 1-6-70, Cl. 117-125.

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Martin, Frank Samuel, to Gillette Company, The. Razor blade marking apparatus. 3,550,152, 12-22-70, Cl. 346-74.

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Martin, Frederick W.; and Harrison, Stanley, to Ion Physics Corporation. High-voltage semiconductor device having a guard ring containing substitutionally active tone in interstitial positions. 3,515,956, 6-2-70, Cl. 317-234.

Martin, George S. Paint tray cover. 3,514,012, 5-26-70, Cl. 220-63.

Martin, Georges Lucien Henri, to Societe de Precision Generale (Societe Anonyme). Pipe connection incorporating a deformable packing. 3,537,733, 11-3-70, Cl. 285-332.3

Martin, Gerhard; Sassmannshausen, Werner; and Roth, Jakob Franz, to Dynamit Nobel Aktiengesellschaft. Process and apparatus for the conveyance of an explosive oil. 3,523,543, 8-11-70, Cl. 137-1.

Martin, Graham D., to Atlas Chemical Industries, Inc. Axially expandable and contractable container. 3,517,616, 6-30-70, Cl. 102-24.

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Martin, Hans. Ski boot. 3,491,465, 1-27-70, Cl. 36-2.5

Martin, Hans. Ski boot with mechanism for tightening the closure flaps. 3,545,106, 12-8-70, Cl. 36-50.

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Martin, Harold E.: *See—*
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Martin, Harold O., to Dow Chemical Company, The. Solid state P.I. servo circuit. 3,493,828, 2-3-70, Cl. 318-18.

Martin, Harry M.; and Poche, Paul J. Cane heaper. 3,515,256, 6-2-70, Cl. 198-33.

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Martin, Helmut; and Ludwig, Reinhard, to Kabel- und Metallwerke Gutehoffnungshutte Aktiengesellschaft. Data acquisition device. 3,534,337, 10-13-70, Cl. 340-172.5

Martin, Henry E., to United Aircraft Corporation. Solid state differential input chopper. 3,510,684, 5-5-70, Cl. 307-240.

Martin, Henry E., to United Aircraft Corporation. Output-transformerless static inverter. 3,514,688, 5-26-70, Cl. 321-2.

Martin, Henry E., to United Aircraft Corporation. Capacitive transducer system independent of stray capacitance. 3,519,923, 7-7-70, Cl. 324-61.

Martin, Henry E.; and Games, John E., to United Aircraft Corporation. Lag-lead AC compensation circuit. 3,492,506, 1-27-70, Cl. 307-262.

Martin, Henry; Aebi, Hans; and Ebner, Ludwig, to Ciba Limited. Urea derivatives. 3,497,541, 2-24-70, Cl. 260-453.

Martin, Henry; Duerr, Dieter; Hitz, Hans-Rudolf; and Von Orelli, Marcus, to Ciba Limited. Preparations containing urea or thiourea derivatives for use as molluscicides. 3,546,344, 12-8-70, Cl. 424-322.

Martin, Horst G., to Societe de la Viscose Suisse. Process for the preparation of synthetic polymer filaments. 3,511,905, 5-12-70, Cl. 264-210.

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Martin, Hubert C., Jr., to General Electric Company. Read/write circuit for use with a magnetic memory. 3,495,223, 2-10-70, Cl. 340-174.

Martin, Hugh H., to General Electric Company. Automatic black level control of television signals. 3,526,710, 9-1-70, Cl. 178-7.2

Martin, Ian Douglas; and Hockin, Harry William, said Martin assor to Commonwealth Scientific and Industrial Research Organisation, and said Hockin assor to Western Titanium N.L. Production of anosovite from titaniferous minerals. 3,502,460, 3-24-70, Cl. 75-1.

Martin, Jack L. Tree shaking device. 3,506,298, 4-14-70, Cl. 294-103.

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Martin, James. Inertia reel devices for safety harnesses. 3,503,571, 3-31-70, Cl. 242-107.4

Martin, James. Apparatus for stowing cables. 3,508,644, 4-28-70, Cl. 206-52.

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Martin, Johannes Josef; and Martin, Walter Joseph. Grate. 3,508,535, 4-28-70, Cl. 126-163.

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Martin, John J.; DeCapua, Nunzie L.; and Sienkiewicz, Henry T., to Avco Corporation. Electrode arrangement for seam welding apparatus. 3,493,714, 2-3-70, Cl. 219-81.

Martin, John L., to Beven-Herron, Inc. Material handling and nailing apparatus. 3,489,328, 1-13-70, Cl. 227-7.

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Martin, John R. Holding device for internal combustion engine heads. 3,494,610, 2-10-70, Cl. 269-16.

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Martin, Joseph F., 1/4 to Marmanac, Inc., and 1/2 to Chemfilt Corporation of America, mesne. Treated tobacco composition. 3,490,462, 1-20-70, Cl. 131-17.

Martin, Joseph F., to Stromberg-Carlson Corporation. Digit drive circuit for so-called plated wire memory. 3,535,700, 10-20-70, Cl. 340-174.

Martin, Joseph W.: *See—*
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Martin, Joseph, to Foster Wheeler Corporation. Internal tube welding torch. 3,493,716, 2-3-70, Cl. 219-125.

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Martin, Leonard M., to Colson Corporation, The. Lateral loading apparatus for storage and retrieval of stacked goods. 3,517,845, 6-30-70, Cl. 214-730.

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Martin, Louis, to Martin, Saint-Priest. Coating machine ensuring a transfer of the coating substance under controlled conditions. 3,520,276, 7-14-70, Cl. 118-8.

Martin, Lyle S., to Sunstrand Corporation. Hydrostatic transmission. 3,522,704, 8-4-70, Cl. 60-53.

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Martin, Merrill D. Automatic brake control for upright web roll stands. 3,488,014, 1-6-70, Cl. 242-75.46

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Martin, Michael S., to Westinghouse Brake and Signal Company Limited. Fluidic speed and direction transducer. 3,531,985, 10-6-70, Cl. 73-116.

Martin, Michel Jean, to U.S. Philips Corporation. Apparatus for adjusting a clock pulse generator with respect to a delay line. 3,535,698, 10-20-70, Cl. 340-173.

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Martin, Perry S., deceased (by Martin, Annie S. Martin, John R.; and King, Mary M.; executors and administrator). Medicated liquid dispensing apparatus for poultry and the like. 3,542,249, 11-24-70, Cl. 222-133.

Martin, Philip W. Voltage multiplier having metallic foil capaitors. 3,521,144, 7-21-70, Cl. 321-15.

Martin, Ralph E., to Howe-Baker Engineers, Inc., mesne. Desalinization of crude oil. 3,505,194, 4-7-70, Cl. 204-190.

Martin, Raymond H., to Brown Machine Company of Michigan, Inc. Differential pressure plastic forming equipment. 3,507,007, 4-21-70, Cl. 18-19.

Martin, Raymond H.; Mulligan, John; and Yochim, James E., said Mulligan and said Yochim assors. to Gulf Oil Corporation. Method for the continuous production of open top containers. 3,527,854, 9-8-70, Cl. 264-89.

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Martin, Robert J., to Cessna Aircraft Company, The. Remote hydraulic control. 3,521,450, 7-21-70, Cl. 60-53.

Martin, Robert J., to Cessna Aircraft Company, The. Pump or motor device. 3,522,759, 8-4-70, Cl. 91-507.

Martin, Robert J., to Cessna Aircraft Company, The. Axial piston pump or motor device. 3,543,649, 12-1-70, Cl. 91-507.

Martin, Robert L., to General Electric Company. Contiguous cam contact for convience outlet. 3,489,985, 1-13-70, Cl. 339-31.

Martin, Robert L., to Eaton Yale & Towne, Inc. Vehicle safety mechanism. 3,511,519, 5-12-70, Cl. 280-150.

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Martin, Robert O.: *See—*
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Martin, Robert T. Potato storage method. 3,506,458, 4-14-70, Cl. 99-154.

Martin, Robert W., to Industrial Nucleonics Corporation. Method and apparatus for reducing the effect of process noise in the output signal of a dual frequency material property measuring system. 3,496,460, 2-17-70, Cl. 324-61.
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Martin, Ross E. Flexible grade stake with driving tool. 3,516,171, 6-23-70, Cl. 33-74.

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Martin, Sterling T., to Union Carbide Corporation. Dual volume fluid sample pump. 3,492,946, 2-3-70, Cl. 103-2.

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Martin, Thomas W., Sr., to Cutters Machine Company, Inc. Cloth roll feeding apparatus. 3,541,600, 11-17-70, Cl. 242-55.

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Martin, Wesley G., to Smith, A. O., Corporation. Drive system for a rotary cutter arm. 3,536,211, 10-27-70, Cl. 214-17.

Martin, Wilhelm N. Epoxy resin intermediates derived from bark. 3,519,653, 7-7-70, Cl. 260-348.

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Martin, William E. Rear dumping self loading vehicle. 3,487,564, 1-6-70, Cl. 37-129.

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Maxwell, Carl A.; Roberts, Harold E.; Leclair, Guy A.; and Cauda, Edward, to Foster Wheeler Corporation. Method of welding dissimilar metals. 3,541,299, 11-17-70, Cl. 219-137.

Maxwell Charles E., III, to Pfizer, Chas., & Co., Inc. Palladium-mecury catalysts. 3,522,192, 7-28-70, Cl. 252-432.

Maxwell Davidson Evaporators Limited: *See—*
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Maxwell, Earl B.; Nicholson, Alan J.; and Wetzel, Guy F. Automobile road testing device. 3,490,276, 1-20-70, Cl. 73-117.

Maxwell, Hugh W.; and Vinci, Mario, to Aerojet-General Corporation. Circuit board terminals with laced conductor means. 3,506,879, 4-14-70, Cl. 317-101.

Maxwell, James Frank. Ice tray. 3,539,145, 11-10-70, Cl. 249-132.

Maxwell, John Murdock: *See—*
Geary, James Edward, Jr.; Harsch, William Edward; Maxwell, John Murdock; and Rego, Richard Donald,3,492,698.
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Maxwell, [illegible]n S.; Feinberg, Paul M.; Czarcinski, Eugene A.; Silverman, Joseph R.; and Lesko, John G., Jr., to United States of America, National Aeronautics and Space Administration. Programmable telemetry system. 3,546,684, 12-8-70, Cl. 340-172.5

Maxwell, Stewart P.; and Lazarus, Herbert C., to Ford Motor Company. Hydrokinetic torque converter with variable capacity stator. 3,525,221, 8-25-70, Cl. 60-54.

Maxwell, Theodore B.: *See—*
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Maxwell, William H.: *See—*
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Maxwell, William J. Portable dwelling structure. 3,541,744, 11-24-70, Cl. 52-73.

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Davis, Michael; Parnell, Edgar William; Sharp, Brian William; and Warburton, Dennis, 3,544,686.
Heywood, Basil Jason; and Meresz, Otto, 3,496,193.

May, Adolf; Liebscher, Heinz; Muller, Heinz; and Krempl, Engelbert, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Corrosion inhibited fuel oils. 3,522,022, 7-28-70, Cl. 44-66.

May, Albert G., to Maycase Corporation, mesne. Golf bag. 3,530,919, 9-29-70, Cl. 150-1.5

May, Carl J., Jr., to Bell Telephone Laboratories, Incorporated. Digital speech detection system. 3,520,999, 7-21-70, Cl. 179-15.

May, Charles Gerard, to Lever Brothers Company. Process for preparing meat flavored compositions. 3,532,514, 10-6-70, Cl. 99-140.

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May, Douglass H. Double plenum air distribution system. 3,516,347, 6-23-70, Cl. 98-31.

May, Edwin Richard Wells: *See—*
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May, Frederick T.; and Williams, Thomas H., to International Business Machines Corporation. Computer system with printer position recognition and control. 3,512,138, 5-12-70, Cl. 340-172.5.

May, George A., to Northern Electric Company Limited. Logic gate with stored charge carrier leakage path. 3,515,899, 6-2-70, Cl. 307-215.

May, George, to FMC Corporation. Tubeless tire inflator. 3,528,474, 9-15-70, Cl. 157-1.1

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May, Gordon H., to International Business Machines Corporation. Record card reader. 3,521,033, 7-21-70, Cl. 235-61.11

May, Guenther W.: *See—*
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May, James E.; and Haley, Alfred J., Jr., to Engelhard Industries, Inc. Process of electroplating an article by sequentially passing the same and a platinum coated tungsten anode through a series of different electroplating baths. 3,505,178, 4-7-70, Cl. 204-32.

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May, Joe Turner, to Du Pont de Nemours, E. I., and Company. Delta road octane computer for controlling the octane quality of a gasoline blend. 3,511,980, 5-12-70, Cl. 235-193.

May, John E., to General electric Company. Process for forming tungsten barrier electrical connection. 3,537,174, 11-3-70, Cl. 29-577.

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May, Leonard: *See—*
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May, Michael, to Hughes Aircraft Company. Thin film chain memory. 3,543,251, 11-24-70, Cl. 340-174.

May, Michael: *See—*
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May, Patrick L.; and Beyer, Ralph E., to International Harvester Company. Automatic bale wagon. 3,499,552, 3-10-70, Cl. 214-6.

May, Pieruigi. Device for fork inclination in lifting trucks. 3,532,239, 10-6-70, Cl. 214-701.

May, Robert L., to White, O. C., Company, The. Fume dispersing work lamp. 3,510,228, 5-5-70, Cl. 415-121.

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May, Timothy T. Merchandise inventory control system. 3,492,747, 2-3-70, Cl. 40-124.2

May, Walter M.; and Pelizzoni, Winton J., to Mack Trucks, Inc. Constant horsepower internal combustion engines. 3,487,634, 1-6-70, Cl. 60-13.

May, Wilhelm, to Nordberg Manufacturing Company, mesne. Cone crusher. 3,497,146, 2-24-70, Cl. 241-293.

May, William D., to Pulp and Paper Research Institute of Canada. System for displaying out-of-tram measurements in disc refiners. 3,500,179, 3-10-70, Cl. 324-34.

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Mayeda, Wataru. Golf practice device with club speed indicator. 3,513,387, 5-19-70, Cl. 324-70.

Mayeda, Wataru. Teaching apparatus. 3,538,621, 11-10-70, Cl. 35-9.

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Mayer, Edward F.; and Baxter, Carlton J., to Xerox Corporation. Electrophotographic recording member having solid crystalline plasticizer available at the imaging surface. 3,488,189, 1-6-70, Cl. 96-1.5

Mayer, Edward H.; and Moore, Robert J., to Bell Telephone Laboratories, Incorporated. Sputtering technique. 3,516,915, 6-23-70, Cl. 204-192.

Mayer, Ernest F.; Brannon, Ward; Schaller, Edwin S., Jr.; and Pickard, Frank C., to United States of America, Interior. Electrically controlled and powered submarine rotary corer system. 3,516,503, 6-23-70, Cl. 175-6.

Mayer, Ferdy. High sensitivity electromechanical actuators. 3,535,590, 10-20-70, Cl. 317-18.

Mayer, Ferdy. Remote indication, measuring and control of diodes and controlled rectifiers. 3,550,110, 12-22-70, Cl. 340-248.

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Mayer, Gerald C., to Howe Richardson Scale Company. Automatic batch and checkweighing apparatus. 3,550,704, 12-29-70, Cl. 177-50.

Mayer, Gustav, to Volkswagenwerk Aktiengesellschaft. Motor vehicle steering column mounting construction. 3,521,724, 7-28-70, Cl. 180-91.

Mayer, Hans Ferdinand. Comparing peak amplitudes of test signal pulses with signals occurring during the time interval therebetween as a measure of transmission line quality. 3,508,144, 4-21-70, Cl. 324-57.

Mayer, Hans; and Bohmann, Werner, to Siemens Aktiengesellschaft. Nuclear power plant with wet-steam generator and steam drying system. 3,544,424, 12-1-70, Cl. 176-55.

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Mayer, John A.; Banas, Mitchell J.; and Willer, Robert E., to Brighton Tool & Die Design, Inc. Milling apparatus for removing a given amount of material from parts satisfying a geometric requirement. 3,532,026, 10-6-70, Cl. 90-11.

Mayer, Joseph C., to Allen-Bradley Company. Relay with sealed contact switch modules. 3,508,180, 4-21-70, Cl. 335-152.

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Mayer, Mayer, Jr., to United States of America, Agriculture. Process and apparatus for making a textile strand. 3,537,249, 11-3-70, Cl. 57-58.89

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Mayer, Peter: *See—*
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Mayer, Peter. Cell for photometric and/or spectrophotometric measurements. 3,493,306, 2-3-70, Cl. 256-246.

Mayer, Peter, to Hellma G.m.b.H., & Co. Device for the photometric and/or spectrophotometric measurement and treatment of fluids. 3,493,307, 2-3-70, Cl. 356-246.

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Mayer-Rieckh, Michael. Ski boot. 3,545,105, 12-8-70, Cl. 36-46.5

Mayer, Robert; and Shawhan, Elbert N., to Sun Oil Company. Switching circuit for cavern probe. 3,537,085, 10-27-70, Cl. 340-182.

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Mayer, Simon Ernest, to Liner Technology, Inc. Process for coating gem stones. 3,539,379, 11-10-70, Cl. 117-69.

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Mayerhofer, Erich, to Siemens Aktiengesellschaft. Traveling wave amplifier tube of the higher power type with a delay line of spaced structural configuration. 3,504,308, 3-31-70, Cl. 333-31.

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Mayhue, Luther F., to Phillips Petroleum Company. Alkylation process with recycle of alkylate to separate reaction zones. 3,513,219, 5-19-70, Cl. 260-683.53

Mayhue, Luther F., to Phillips Petroleum Company. Fractionation process. 3,537,985, 11-3-70, Cl. 208-355.

Mayhue, Luther F., to Phillips Petroleum Company. Vapor pressure control in a fractionator of an alkylation process. 3,548,023, 12-15-70, Cl. 260-683.53

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Maynard, Charles H.; and Singer, Herbert B., to Massachusetts Institute of Technology. Bearing pre-treat process. 3,507,677, 4-21-70, Cl. 117-27.

Maynard, Fred B., to Motorola, Inc. Transistor frequency glide control for musical twin tee oscillator tone generators. 3,535,430, 10-20-70, Cl. 84-1.08

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Maynard, John T., to Smith, A. O., Corporation. Bi-directional power circuit having crossover control means. 3,551,782, 12-29-70, Cl. 321-13.

Maynard, John T.; and Lunz, John E., to Smith, A. O., Corporation. Polyphase full wave rectified power circuit having phase detection means. 3,551,748, 12-29-70, Cl. 317-47.

Maynard, Kenneth B.; and Miller, Robert C., to International Business Machines Corporation. Path-modifying apparatus for continously moving web. 3,531,035, 9-29-70, Cl. 226-114.

Maynard, Wheeler D.; and Belanger, Edward A., to General Signal Corporation. Electromagnetic relay structure. 3,509,502, 4-28-70, Cl. 335-129.

Maynard, Wheeler D.; and Belanger, Edward A., to General Signal Corporation. Electromagnetic relay structure. 3,548,139, 12-15-70, Cl. 200-168.

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Mays, Ivan K. Road roughness meter. 3,525,257, 8-25-70, Cl. 73-146.

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Mays, John C., to Cooper-Mays Harvesters, Inc. Vehicle stabilizing assemblies. 3,532,334, 10-6-70, Cl. 267-12.

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Mays, Robert K.; and Cioni, Philip Thomas, to Huber, J. M., Corporation. Titanium dioxide pigment. 3,499,779, 3-10-70, Cl. 106-300.

Mays, Wilburt W. Electrically operated hair treating device with removable curling and combing mandrels and internal slip pulley safety feature. 3,533,421, 10-13-70, Cl. 132-148.

Mays, William T.; and Mays, John C., to Cooper-Mays Harvesters, Inc. Harvesting apparatus. 3,507,105, 4-21-70, Cl. 56-328.

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Mazdiyasni, Khodabakhsh S.; Lynch, Charles T.; and Smith, Jonathan S., II. Method for making high purity and high yield tertiary-amyl acetate. 3,489,796, 1-13-70, Cl. 260-488.

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parent zirconia and process for making same. 3,525,597, 8-25-70, Cl. 23c293.
Mazelsky, Bernard, to ARA, Inc. Energy absorbing steering mechaniam for vehicles. 3,523,587, 8-11-70, Cl. 180-82.
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McCartney, Duane N.; Carder, Victor H.; and Shaw, Hugh H., to Domino Sugar Company. Cargo handling apparatus. 3,489,300, 1-13-70, Cl. 214-38.
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McCarty, Charles Bruce, to Procter & Gamble Company, The. Enzyme-containing detergent compositions and a process for conglutination of enzymes and detergent compositions. 3,519,570, 7-7-70, Cl. 252-135.
McCarty, Francis L.: *See—*
Finn, William M.; and McCarty, Francis L.,3,541,037.
McCarty, Helen A. Blender scraper. 3,504,391, 4-7-70, Cl. 15-236.
McCarty, Horace G.: *See—*
Lausch, Henry N.; Halls, Lawrence M.; Harer, Delmar C.; and McCarty, Horace G.,3,517,491.
Mc Carty, Horace G.: *See—*
Risser, Roger L.; Foulke, Edward D.; and Mc Carty, Horace G.,3,548,574.
McCarty, Leo M.; and Howe, Clarence H. Connector for animal identification tags. 3,526,987, 9-8-70, Cl. 40-301.
McCarty, Ralph William, to Extrude Home, Inc. Method of honing by extruding. 3,521,412, 7-21-70, Cl. 51-317.
McCarty, Richard G.; Moldenhauer, James G.; and Stachiw, Jerry D., to United States of America, Navy. Edreobenthic manned observatory for undersea research. 3,527,184, 9-8-70, Cl. 114-16.
McCarty, William H.; Nettleton, Harry R.; and Stevenson, Robert W., to Mobil Oil Corporation. Esterification process. 3,496,220, 2-17-70, Cl. 260-475.
McCarty, William R., Jr.: *See—*
Hanna, John W.; McCarty, William R., Jr.; and Dolter, Paul A.,3,518,667.
McCarty, William Raymond, Jr.; and Hanna, John W., to Dole Valve Company, The. Warning device for automatic washing and drying machines. 3,540,039, 11-10-70, Cl. 340-392.
McCaskill, Garvin M., to Emerson Electric Co. Heat transfer device. 3,548,158, 12-15-70, Cl. 219-530.
McCaughey, Stuart H. Feed and transfer systems. 3,528,575, 9-15-70, Cl. 214-8.5
McCauley, Herbert J., Jr. Bicycle fender flaring apparatus. 3,512,390, 5-19-70, Cl. 72-322.
McCaully, Ronald J.: *See—*
Bell, Stanley C.; McCaully, Ronald J.; and Childress, Scott J.,3,534,031.
McCay, John Stanley. Portable combination flattened cylindrical sander- grinder. 3,488,889, 1-13-70, Cl. 51-135.
McCelland, James F., Jr.; and Ebbert, Robert J., to SI Handling Systems, Inc., mesne. Belt conveyor construction. 3,523,605, 8-11-70, Cl. 198-171.
McClaid, Russell D., Jr.: *See—*
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Mc Clain, Dorothee M.: *See—*
Vest, Betty L.; and Mc Clain, Dorothee M.,3,522,036.
McClain, James E.; Parks, Argus F.; and Hogue, Maurice A., to Esco Manufacturing Company. Switch actuator apparatus. 3,511,944, 5-12-70, Cl. 200-17.
McClain, Orville G. Method of determining the presence of an unconsolidated plug. 3,490,528, 1-20-70, Cl. 166-253.
McClain, Richard C., to Star Manufacturing Company of Oklahoma. Wall paneling having concealed connection regions. 3,509,675, 5-5-70, Cl. 52-462.
McClain, Walter J.; and Jenkins, George S., to Greiner, J. E., Company. Method and system for parking aircraft at crowded terminals. 3,489,297, 1-13-70, Cl. 214-16.1
McClaren, Donald L.: *See—*
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McClaskey, Frank L. Cargo container locking assembly. 3,517,621, 6-30-70, Cl. 105-366.

McClean, William George, to Youngstown Sheet and Tube Company, The. Apparatus for forming multi-ply tape. 3,507,434, 4-21-70, Cl. 226-142.
McClean, William G., to McClean-Anderson, Inc. Drive system for a filament winding machine. 3,499,616, 3-10-70, Cl. 242-158.
McClean, William G., to McClean-Anderson, Inc. Carriage mounting construction for a filament winding machine. 3,518,889, 7-7-70, Cl. 74-37.
McClean-Anderson, Inc.: *See—*
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McClean, William G., 3,518,889.
McCleary, James K., 40% to Bensfield, Gerald A. Plural-unit cargo carrier. 3,504,814, 4-7-70, Cl. 214-515.
McCleary, Robert E.: *See—*
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McCleery, Harold C. Continuous miner with contour cutting boring head. 3,523,711, 8-11-70, Cl. 299-59.
McCleese, Sam S., Jr.: *See—*
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McClellan, Bingham A.; Peters, John K.; and Hicks, David J., to McClellan Industries, Inc. Artificial fishing lure with chain reinforced sectional body and plastic weed guard. 3,537,207, 11-3-70, Cl. 43-42.24
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McClellan, John F.: *See—*
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Mc Clellan, Melvin L.; and Kozak, Donald S., to Union Carbide Corporation. Alloy addition process. 3,545,960, 12-8-70, Cl. 75-51.
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McClellan, Van P., Jr. Mophead. 3,512,203, 5-19-70, Cl. 15-229.
McClellan, William R.; and Stiles, Alvin B., to Du Pont de Nemours, E. I., and Company. Bismuth molybdate on silica catalysts. 3,497,461, 2-24-70, Cl. 252-437.
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McClelland, Etheridge R.: *See—*
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McClelland, Etheridge R.; and Spence, Henry L., to Filper Corporation. Apparatus for automatically feeding, orienting and pitting drupe halves and method. 3,503,485, 3-31-70, Cl. 198-33.
Mc Clelland, Etheridge R.; and Spence, Henry L., to Filper Corporation. Drupe pitter. 3,540,507, 11-17-70, Cl. 146-237.
McClelland, Jack F., to United States of America, Air Force. Fiber glass cooling jacket for directing air across an infrared scanning tube. 3,500,453, 3-10-70, Cl. 313-22.
Mc Clintock, James A., to Eastman Kodak Company. Use of an enzyme inhibitor to retard the degradation of gelatin. 3,503,746, 3-31-70, Cl. 96-94.
McClintock, Robert M., to Tridair Industries. Latch. 3,495,862, 2-17-70, Cl. 292-173.
McClintock, Ross A., to Pike Corporation of America. Subsea drilling apparatus. 3,525,388, 8-25-70, Cl. 166-0.5
McClintock, William A.; and Politte, Leo L., to Phillips Petroleum Company. Recovery of sulfur and hydrogen sulfide from admixture with solvent from gas well by plural stage distillation of solvent. 3,498,887, 3-3-70, Cl. 203-21.
McClinton, Ronald E., 5% to Penrod, Donald L. Occupant propelled playground device. 3,497,210, 2-24-70, Cl. 272-55.
McClister, Harry A., deceased (by McClister, Ruth W., executrix); and Fidelity Bank, The; executor. Powered scorer for bowling. 3,517,878, 6-30-70, Cl. 235-114.
McCloskey, Albert R., to Heim Universal Corporation, The. Bearing and method bearing construction. 3,528,714, 9-15-70, Cl. 308-238.
McCloskey Grant Corporation: *See—*
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McCloud, James R., to I-T-E Imperial Corporation, mesne. Stationary contact having sealing gasket support structure. 3,521,016, 7-21-70, Cl. 200-148.
McCloud, James R.; and McConnell, Lorne D., to I-T-E Imperial Corporation, mesne. Resistor switch for air blast circuit breaker. 3,549,841, 12-22-70, Cl. 200-148.
McCloud, Robert A.; and Rucker, James H., said Rucker assor. to said McCloud. Winch mechanism. 3,536,299, 10-27-70, Cl. 254-150.
McCluckie, Donald E.; and Brown, Willard D., Jr., to White Consolidated Industries, Inc. Coupling mechanism for power conveyors. 3,550,533, 12-29-70, Cl. 104-100.
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McClughan, Joseph Wm.; and Pruter, Frederick, Jr. Signalling magnetic flaw detector. 3,539,914, 11-10-70, Cl. 324-37.
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McClure, Carroll D.; McDonal, Frank J.; and Ruehle, William H., to Mobil Oil Corporation. Geophysical data processing technique. 3,504,974, 4-7-70, Cl. 356-71.
Mc Clure, Charles A.: *See—*
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McClure, Charles A. Apparatus for strand treatment. 3,500,516, 3-17-70, Cl. 28-1.2
Mc Clure, Claude Newton. Car cleaning apparatus. 3,535,730, 10-27-70, Cl. 15-314.
McClure, Clifton M., III. Ammunition round. 3,507,220, 4-21-70, Cl. 102-42.
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Scott, Mertz O.; and McClure, Clive E.,3,521,413.
McClure, Delmar H. Cart. 3,495,553, 2-17-70, Cl. 108-14.
McClure, Elson R. Smog arrester. 3,533,608, 10-13-70, Cl. 261-109.
McClure, Gerald L., to Essex International, Inc. Latchable reciprocable switch construction. 3,500,008, 3-10-70, Cl. 200-61.54
McClure, Glenn T., to Westinghouse Air Brake Company. Brake valve apparatus. 3,504,950, 4-7-70, Cl. 303-35.
McClure, James D., to Shell Oil Company. Codimerization of α-olefins and conjugated diolefins. 3,530,197, 9-22-70, Cl. 260-680.
McClure, John C., Jr.: *See—*
Gogos, Bela; McClure, John C., Jr.; and Rohling, Jerald R.,3,532,970.
McClure, Orly Bob: *See—*
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McClure, William F., to Denali Services Co., Inc. Oil well tubing having non-communicating fluid passages. 3,489,438, 1-13-70, Cl. 285-133.
McClure, William M., Jr., to North American Rockwell Corporation. Tape motion for shuttleless looms. 3,517,705, 6-30-70, Cl. 139-122.
McClurg, Robert A.: *See—*
Johnson, Ellsworth L.; and McClurg, Robert A.,3,533,075.
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Molins, Desmond Walter; Williamson, David Theodore Nelson; McCobie, Alan Keith; and Stone, Horace Alexander,3,495,696.
McColl, Bruce J., to Owens-Illinois, Inc. Tree harvesting and processing machine. 3,533,458, 10-13-70, Cl. 144-309.
McCollister, Jon D.; and Carroll, John E., to Lincoln Electric Company, The. Method of and power supply for electric arc welding. 3,502,897, 3-24-70, Cl. 307-52.
McCollough, John K., to Deering Milliken Research Corporation. Coin wrapping machine. 3,530,638, 9-29-70, Cl. 53-77.
McCollough, John K.; and Wylie, Richard D., to Deering Milliken Research Corporation. Coin conveyor. 3,550,350, 12-29-70, Cl. 53-167.
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McCombs, Frank Paul, to Owens-Corning Fiberglas Corporation. Urea-melamine-formaldehyde resins. 3,488,310, 1-6-70, Cl. 260-29.3
McConnaughey, Paul Willis, to Mine Safety Appliances Company. Article for the determination of carbon monoxide. 3,507,623, 4-21-70, Cl. 23-254.
McConnaughey, Paul W., to Mine Safety Appliances Company. Apparatus for sampling and analyzing breath. 3,544,273, 12-1-70, Cl. 23-254.
McConnaughhay, Jarvis W. Shopping cart unloading apparatus. 3,513,944, 5-26-70, Cl. 186-1.
McConnell, Albert L.: *See—*
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McConnell, Bobby D., to United States of America, Air Force. Solid lubricant compositions employing polybenzothiazole resins and lubricating pigments. 3,525,691, 8-25-70, Cl. 252-25.
Mc Connell, Elbert E., to Chase-Shawmut Company, The. High-voltage fuse. 3,533,041, 10-6-70, Cl. 337-162.

McConnell, Harden M., to Synvar Associates, mesne. Electron spin resonance labeling of biomolecules. 3,489,522, 1-13-70, Cl. 23-230.
McConnell, Harden M.; Ogawa, Seiji; and Hamilton, Carole L., to Synvar Associates. Pyrrolidine and piperidine nitroxide spin labelling compounds. 3,507,876, 4-21-70, Cl. 260-294.
McConnell, Howard M.: *See*—
Morley, William E.; and McConnell, Howard M.,3,495,903.
McConnell, James C.; Pinnolis, Samuel; and Schmidt, Wilhelm E.A., to Western Electric Company, Incorporated. Apparatus for assembling components of a sealed contact switch. 3,491,425, 1-27-70, Cl. 29-203.
McConnell, James Clifford: *See*—
Marlin, Glenn Adrian; McConnell, James Clifford; and Schmidt, Wilhelm Emil Albert,3,539,323.
McConnell, James L., to Whirlpool Corporation. Device for measuring dynamic surface tension. 3,504,530, 4-7-70, Cl. 73-64.4
McConnell, John R. Apparatus for welding connection angles to structural beams. 3,522,408, 8-4-70, Cl. 219-87.
Mc Connell, John R. Drilling and bolting of structural members. 3,543,374, 12-1-70, Cl. 29-200.
McConnell, John R. Structural member fabricating process. 3,546,772, 12-15-70, Cl. 29-430.
McConnell, Kennedy, to Interlake Steel Corporation. Conveyor load spacer. 3,532,201, 10-6-70, Cl. 193-35.
McConnell, Leonard W. Apparatus for selectively projecting refractory material against the lining of basic oxygen furnaces. 3,533,375, 10-13-70, Cl. 118-58.
McConnell, Lorne D., to I-T-E Imperial Corporation, mesne. Stationary contact structure forcing blow out shaped current path. 3,505,488, 4-7-70, Cl. 200-148.
McConnell, Lorne D.: *See*—
McCloud, James R.; and McConnell, Lorne D.,3,549,841.
McConnell, Richard L.; and Coover, Harry W., Jr., to Eastman Kodak Company. Polymers derived from diamines or aminoalcohols and trialkyl or triaryl phosphites. 3,547,893, 12-15-70, Cl. 260-77.5
McConnell, Richard L.; and Weemes, Doyle A., to Eastman Kodak Company. Method for making polyolefin waxes by thermal degradation of higher molecular weight polyolefins in the presence of organic acids and anhydrides. 3,519,609, 7-7-70, Cl. 260-88.2
McConnell, Richard L.; and Weemes, Doyle A., to Eastman Kodak Company. Process for curtain coating articles with a molten composition. 3,524,759, 8-18-70, Cl. 117-105.3
McConnell, Robert C.; and Barrett, Walter R. Apparatus for concentration of and recovery of constituents from liquid solutions. 3,511,298, 5-12-70, Cl. 159-16.
McConnell, Roger A., to United States of America, Atomic Energy Commission. Impedance matching coupler system for a variable resistive load impedance. 3,544,922, 12-1-70, Cl. 333-17.
McConnell, William C., to PPG Industries, Inc. Hydrocarbon mixtures containing a stable azide. 3,520,665, 7-14-70, Cl. 44-51.
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McCoppin, George T., to Owens-Corning Fiberglas Corporation. Apparatus for forming multifilament strand. 3,508,892, 4-28-70, Cl. 65-11.
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Mc Cord, Jesse L.; and Heinle, Carl, Jr., said Mc Cord assor to said Heinle. Remotely controlled vehicle mirror. 3,545,290, 12-8-70, Cl. 74-98.
McCord, Jimmy C. Vehicle traction device and method of mounting and dismounting. 3,532,149, 10-6-70, Cl. 152-213.
McCord, Philip D.; and Lang, Ellis P., Jr., to Lunkenheimer Company, The. Multiple flow-pattern valve. 3,499,467, 3-10-70, Cl. 137-625.19
McCord, Wilfred M., Jr., to Vermont American Corporation. File holder. 3,531,841, 10-6-70, Cl. 29-78.
McCorkle, David D. Stereo speaker headrest for an automobile seat. 3,512,605, 5-19-70, Cl. 181-31.
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Schneble, Frederick W., Jr.; Leech, Edward John; and McCormack, John Francis,3,546,009.
McCormick, Arline G., to Conversion Chemical Corporation. Cleaning method. 3,544,365, 12-1-70, Cl. 134-1.
McCormick, Brian James, to Plessey Company Limited, The. Rotary electric machines. 3,539,856, 11-10-70, Cl. 310-266.
McCormick, Denis Vernon: *See*—
Blake, Edward John; and McCormick, Denis Vernon,3,519,266.
McCormick, Donald J.: *See*—
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McCormick, Edward D.; Burke, Hubert K.; and Hottes, Frederick A., to General Electric Company. Communication response unit. 3,541,257, 11-17-70, Cl. 178-22.
Mc Cormick, Frank, to Submersible Systems Inc. Process for containment and deflection of aqueous surface pollutants. 3,491,023, 1-20-70, Cl. 210-83.
McCormick, James C., to FMC Corporation. Method of decomposing hydrogen peroxide using a silver-palladium catalyst. 3,488,962, 1-13-70, Cl. 60-218.
McCormick, James F. Automatic measuring device. 3,516,164, 6-23-70, Cl. 33-27.
McCormick, John F.; and Ormerod, Louis H., to United States of America, Air Force. V-STOL data camera. 3,505,941, 4-14-70, Cl. 95-36.
McCormick, John L.: *See*—
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McCormick, Joseph F., to Delta Hydraulics Company. Servo valve. 3,498,329, 3-3-70, Cl. 137-625.64
McCormick, Joseph F., to Delta Hydraulics Company. Suspension assembly for bobbin in servo-valve. 3,516,441, 6-23-70, Cl. 137-625.61
McCormick, Joseph F., to Delta Hydraulics Company. Servo-valve with ceramic force motor. 3,524,474, 8-18-70, Cl. 137-625.61
McCormick, Loran F.; Kovar, Joseph J.; and Brown, Claude W., to United States of America, Navy. Communication system time recovery unit. 3,551,814, 12-29-70, Cl. 325-38.
McCormick, Robert J.; and Ryan, Winslow E., to Sylvania Electric Products, Inc. Method of fabricating iron electrodes for alkaline storage batteries. 3,525,640, 8-25-70, Cl. 136-76.
McCormick, Robert W., to Union Camp Corporation. Produce container with flange locks. 3,499,596, 3-10-70, Cl. 229-32.
McCormick, Walter R., Jr.; and Knott, Robert T., to National Lead Company. Cast and fused block of hygroscopic salt coated with a wax and an ethylene-vinyl acetate copolymer. 3,492,141, 1-27-70, Cl. 117-6.
McCormick, Walter R., Jr.: *See*—
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McCourt, Cyril Francis: *See*—
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McCown, Everett E., to United States of America, Navy. Cathode ray tube modulation system. 3,497,816, 2-24-70, Cl. 178-7.5
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McCoy, Frederic C. Parraffinic base oil carrier compositions for use in metal working and pesticides. 3,544,679, 12-1-70, Cl. 424-80.
McCoy, Frederic C.; and Knowles, Edwin C., to Texaco Inc. Hydrocarbon lubricating oil containing a polymer of a conjugated diolefin as a viscosity index improver. 3,547,821, 12-15-70, Cl. 252-49.8
McCoy, Frederic C.: *See*—
Dadura, James G.; Knowles, Edwin C.; and McCoy, Frederic C.,3,507,918.
Hellmuth, Walter W.; McCoy, Frederic C.; and Knowles, Edwin C.,3,488,285.
McCoy, Herbert E.; and Canonico, Domenic A., to United States of America, Atomic Energy Commission. Composite structure welded with tungsten- containing nickel-base filler metal. 3,502,450, 3-24-70, Cl. 29-198.
McCoy, Herbert L., to McDonnell Douglas Corporation, mesne. Comparison system for testing points in a circuit using a multichannel analog signal record and playback means. 3,522,532, 8-4-70, Cl. 324-73.
McCoy, John H. Data recording or tabulating device having replacement or interchangeable segments. 3,546,799, 12-15-70, Cl. 40-63.
McCoy, John J.; and Willox, J. Hebden. Helical spring lockwasher. 3,494,400, 2-10-70, Cl. 151-38.
McCoy, Karen Ann: *See*—
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McCoy, Reginald F. H., to Westinghouse Electric Corporation. Method and system for recording sampled signals on a continuous recording medium. 3,526,900, 9-1-70, Cl. 346-74.
McCoy, Thomas A., to Carando Machine Works. Split flanging die unit. 3,540,260, 11-17-70, Cl. 72-465.
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Mc Cracken, Collin P.: *See*—
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McCracken, Donald G., to Aeroquip Corporation. Swivel joint. 3,517,952, 6-30-70, Cl. 285-276.
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Jull, Norman A.; McCracken, Herbert A.; and Graham, James C. L.,3,520,319.
McCracken, John H.; Schulz, Johann G. D.; and Ward, John V., to Gulf Research & Development Company. Preparation of a purified benzophenone carboxylic acid. 3,510,513, 5-5-70, Cl. 260-517.
McCracken, Norman L.: *See*—
Schreier, Konrad F., Jr.; and McCracken, Norman L.,3,520,274.
McCracken, Philip G.: *See*—
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Mc Cracken, William E., to Jeffrey Galion Manufacturing Company. Mining machine with drive system for mining head gathering means, conveyor and traction means. 3,495,876, 2-17-70, Cl. 299-64.
McCracken, William E., to Jeffrey Galion Manufacturing Company. Mining machine with drive construction for operating elements of the mining machine. 3,499,684, 3-10-70, Cl. 299-64.
McCracken, William E.; and Munger, Fay E., to Jeffrey Galion, Inc. Method for mining material from the entire face. 3,542,432, 11-24-70, Cl. 299-18.
McCrady, John, to Texas Instruments, Incorporated. Tape advance system. 3,520,459, 7-14-70, Cl. 226-160.
McCraney, Thomas E.: *See*—
Austin, Richmond O.; Bullock, Herschel V.; and McCraney, Thomas E.,3,533,971.
McCraw, David L.: *See*—
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McCrea, Charles H., to Plastic Productions Company. Casting composite articles. 3,510,551, 5-5-70, Cl. 264-250.
McCrea, George A., to PPG Industries, Inc. Covered roll. 3,534,458, 10-20-70, Cl. 29-120.
McCrea, Joseph, to Stapling Machines Co. Wirebound container blank with integral ends and botton liner. 3,487,970, 1-6-70, Cl. 217-43.
McCrea, Joseph, to Stapling Machines Co. Wirebound container lid. 3,497,099, 2-24-70, Cl. 217-56.
McCrea, Joseph, to Stapling Machines Co. Wirebound container lid. 3,498,492, 3-3-70, Cl. 217-56.
McCrea, Joseph, to Stapling Machines Co. Container lid. 3,504,843, 4-7-70, Cl. 229-45.
McCrea, Samuel E., 1/4 to Handy, Mattie E. Bumper forming a reservoir with foldable step. 3,501,190, 3-17-70, Cl. 293-69.
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McEwen, Norman S. Insect exterminator. 3,540,145, 11-17-70, Cl. 43-113.
McEwen, Stephen N.: *See—*
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McFadden, Bruce Richard, to AMP Incorporated. Card reader. 3,492,447, 1-27-70, Cl. 200-46.
McFadden, Bruce Richard, to AMP Incorporated. Electrical connector. 3,496,516, 2-17-70, Cl. 339-18.
McFadden, Edward F.; and Williams, Leonard J., to Moog Inc. Free jet stream deflector servovalve. 3,542,051, 11-24-70, Cl. 137-83.
McFadden, Edward J., to Jackson, Byron, Inc. Tilting elevator. 3,494,484, 2-10-70, Cl. 214-2.5
McFadden, Edward J., to Jackson, Byron, Inc. Hinge pin retainer. 3,497,906, 3-3-70, Cl. 16-169.
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McFadden, Russell T.; and Cramm, Russell H., to Dow Chemical Company, The. Aminohydroxyalkyl methacrylates. 3,514,473, 5-26-70, Cl. 260-347.4
McFadden, Thomas P.; Moe, Rolf; and Sidoti, Frank B. Industrial technique. 3,549,421, 12-22-70, Cl. 134-31.
McFadyen, Richard; Bosland, James M.; and Marchese, Justin, to Ketcham & McDougall, Inc. Spring-type weigher with parallelogram linkage. 3,532,175, 10-6-70, Cl. 177-169.
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McFalls, Richard J.: *See—*
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McFarland, Andrew R.; and Peterson, Carl M., to Environmental Research Corporation. Aerosol sampler. 3,518,815, 7-7-70, Cl. 55-241.
McFarland, Bill B.: *See—*
Soffer, Bernard H.; and McFarland, Bill B.,3,496,487.
McFarland, Frederick R., to K-D Manufacturing Company. Tool for removing and replacing springs and washers. 3,546,767, 12-15-70, Cl. 29-227.
McFarland, Frederick R.; and Diffenderfer, Walter L., to K-D Manufacturing Company. Tool for separating brake shoes. 3,540,698, 11-17-70, Cl. 254-100.
McFarland, George L., to General Electric Company. Method of making induction heater ring. 3,510,938, 5-12-70, Cl. 29-602.
McFarland, James W.: *See—*
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Mc Farland, James W.: *See—*
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McFarland, Jerry L., to North American Rockwell Corporation. Hemispherical dielectric lens type antenna employing a uniform dielectric. 3,550,139, 12-22-70, Cl. 343-754.
McFarland, Walter O.; and Buschbom, Wilbur Lyle. Horse shoes. 3,506,072, 4-14-70, Cl. 168-13.
McFarland, William H.; and Tietz, Henry M., to Inland Steel Company. Process for producing coiled, hot-rolled, pickled steel strip. 3,513,036, 5-19-70, Cl. 148-12.
Mc Farland, William W.; and Wintringer, Harry D., III, to International Paper Company. TV tube box. 3,494,534, 2-10-70, Cl. 229-14.
McFarlane, Archie J. Head brace. 3,504,667, 4-7-70, Cl. 128-75.
McFarlane, Hugh B., to United States of America, Atomic Energy Commission. High voltage coaxial connector. 3,533,047, 10-6-70, Cl. 339-94.
McFarlane, Samuel B., to Electroprint, Inc., mesne. Method and apparatus for electrostatic color reproduction. 3,532,422, 10-6-70, Cl. 355-4.
McFee, Richard. Apparatus and method for determining the capacitance and conductance of capacitors. 3,518,537, 6-30-70, Cl. 324-60.
McGaha, George V., to Pelton & Crane Company, The. Dental instrument cabinet and storage mechanism. 3,514,171, 5-26-70, Cl. 312-209.
McGahey, Bruce H.; and Woodruff, Earl M., to Bell Telephone Laboratories, Incorporated. Interconnected matrix conductors and method of making the same. 3,499,098, 3-3-70, Cl. 174-68.5
McGahey, Dean C.: *See—*
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McGann, Elton Y.; and Smoot, Robert B., to United States of America, Navy. Submarine target simulator. 3,506,086, 4-14-70, Cl. 181-0.5
McGann, Laurence, to International Telephone and Telegraph Corporation. Area light source. 3,488,485, 1-6-70, Cl. 240-1.
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McGarr, John J., to USM Corporation. Processes for making microporous polyurethane bodies employing non-boiling liquid alkyl ethers or liquid aliphatic hydrocarbons. 3,551,364, 12-29-70, Cl. 260-2.5
McGarry, John J. Fabric fasteners. 3,496,614, 2-24-70, Cl. 24-156.
Mc Gary, Charles W., Jr.: *See—*
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McGaughey, Robert S., to McCreary Tire & Rubber Company. Method of making structural members of layers of corrosion resistant coatings and fibrous material. 3,520,747, 7-14-70, Cl. 156-153.
McGaughey, William C.; and Munger, Donald W., to Automation Industries, Inc. Ultrasonic material tester. 3,533,280, 10-13-70, Cl. 73-67.9
McGaughey, William H. T., Jr. Game apparatus with cards played in alignment across a board. 3,512,779, 5-19-70, Cl. 273-135.
McGauley, Patrick J. Concentration of copper from copper ores, concentrates and solutions. 3,544,306, 12-1-70, Cl. 75-72.
McGee, Arthur L.; and Chamberlin, Donald W., to FMC Corporation. Sheet dispenser. 3,501,138, 3-17-70, Cl. 271-11.
McGee, Charles G. Slide calculator for direct addition and/or subtraction of integer qualities in two number systems. 3,540,648, 11-17-70, Cl. 235-89.
McGee, Donald J., to Dura Corporation. Suspension. 3,494,608, 2-10-70, Cl. 267-31.
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McGee, Edward Charles, to Litton Precision Products, Inc. Press tools. 3,528,157, 9-15-70, Cl. 29-200.
McGee, John A. Outdoor broiler having rotary grill. 3,512,515, 5-19-70, Cl. 126-25.
Mc Gee, John J.; Kelly, Tom J.; and Harman, John N., III, to Beckman Instruments, Inc. Scrubber method and apparatus. 3,495,944, 2-17-70, Cl. 23-232.
McGee, John K., to Giddings & Lewis, Inc. Method and system for digitally signaling absolute position. 3,539,788, 11-10-70, Cl. 235-154.
McGee, John K., to Giddings & Lewis, Inc. Apparatus for controlling the instantaneous positions and velocities of movable elements according to digital numerical commands. 3,539,895, 11-10-70, Cl. 318-570.
Mc Gee, Kenneth E.: *See—*
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McGee, Sherwood W., to Burgess-Norton Mfg. Co. Method of treating scrap metal. 3,549,350, 12-22-70, Cl. 75-0.5
McGee, Sherwood W.; Andreotti, Eugene R.; Hirschhorn, Joel S.; and Westphal, David A., to Burgess-Norton Mfg. Co. Powder metallurgy method of forming an age hardenable ferrous alloy. 3,522,115, 7-28-70, Cl. 148-126.
McGee, Thomas W.: *See—*
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Wang, Chun-Shan; and McGee, Thomas W.,3,544,610.
Wang, Chun-Shan; and McGee, Thomas W.,3,547,967.
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McGehee, John R., to United States of America, National Aeronautics and Space Administration. Omnidirectional multiple impact landing system. 3,520,503, 7-14-70, Cl. 244-138.
McGehee, Wallace L., to American Pollution Prevention Co., Inc. Rotary dehydrator system. 3,532,332, 10-6-70, Cl. 263-33.
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McGhee, John D., to Du Pont de Nemours, E. I., and Company. Automatic range changing circuit. 3,539,936, 11-10-70, Cl. 330-29.
McGhee, John D., to Du Pont de Nemours, E. I., and Company. Voltage supply. 3,546,626, 12-8-70, Cl. 331-113.
McGhee, John D.; and Tabeling, Raymond W., to Du Pont de Nemours, E. I., and Compay. Device for measuring the maximum intensity of a pulse of energy. 3,514,209, 5-26-70, Cl. 356-224.
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McGiffen, John W.; and Speer, Thomas E., Jr. Credit card with structurally interengaging components. 3,511,181, 5-12-70, Cl. 101-369.

McGill, Charles H., to Monsanto Company. Tow guide. 3,525,281, 8-25h70, Cl. 83-443.
Mc Gill, Howard L., to Schlumberger Technology Corporation. Running apparatus for well tools. 3,495,659, 2-17-70, Cl. 166-125.
McGill, Howard L., to Schlumberger Technology Corporation. Well packer apparatus. 3,516,493, 6-23-70, Cl. 166-140.
Mc Gill, Landon G. Liquid level indicator. 3,543,580, 12-1-70, Cl. 73-313.
McGill, Landon G. Liquid level warning device. 3,545,272, 12-8-70, Cl. 73-311.
McGill Manufacturing Company, Inc.: *See—*
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McGill, Paul, to Midland-Ross Corporation. Feeder for auger-type extruder. 3,496,601, 2-24-70, Cl. 18-12.
McGillion, Robert W.; and Owen, William S., Jr., to Eastman Kodak Company. Fade-in, fade-out control. 3,517,990, 6-30-70, Cl. 352-91.
McGilvray, Bruce L.; Lang, Donald J.; Boehner, William E.; and Bee, Mark W., to International Business Machines Corporation. Data processing system execution retry control. 3,533,065, 10-6-70, Cl. 340-172.5
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McGrath, Joseph J.; and Strange, Harold O., to Gulf Research & Development Company. Lubricating composition. 3,518,194, 6-30-70, Cl. 252-47.5
McGrath, Martin Hager; Hahn, Herman Emil; Turner, Stephen Elliot; Rowland, John Carrere; and Leuteritz, Raoul Hugh, to General Cable Corporation. Accumulator tube for cable reels. 3,534,920, 10-20-70, Cl. 242-117.
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McGrath, Robert E., to B-W Footwear Company, Inc. Golf shoe. 3,512,274, 5-19-70, Cl. 36-2.5
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McGuffey, James W., to Tranter Manufacturing, Inc. Falling film-type heat exchange unit. 3,504,738, 4-7-70, Cl. 165-117.

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Mc Ilvaine, Robert L., to National Dust Collector Corporation. Filter apparatus for gas scrubber. 3,544,087, 12-1-70, Cl. 261-81.

McIlvried, Howard G.; and Sebulsky, Raynor T., to Gulf Research & Development Company. Process for the hydrogenation of unsaturated hydrocarbons. 3,494,857, 2-10-70, Cl. 208-143.

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McInnes, Robert: *See—*
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McInnis, Andrew M., to Rusco Industries, Inc., mesne. Code perforating device. 3,508,706, 4-28-70, Cl. 234-100.

McIntire, Daryl C. Impact tool attachment for an electric drill. 3,491,839, 1-27-70, Cl. 173-93.6

McIntire, Hoy O.; Hunter, Harvey H.; Seale, Clifford L.; and Flora, John H. Ferromagnetic ball magnetizer and remanence detector. 3,488,575, 1-6-70, Cl. 324-34.

McIntire, Hoy O.; Hunter, Harvey H.; Seale, Clifford L.; and Flora, John H. Ferromagnetic ball magnetizer and remanence detector. 3,488,576, 1-6-70, Cl. 324-34.

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McIntosh, Alex C.; and Proctor, Darryl Frederic, to Proctor and Associates Company. Communication system exclusion circuit. 3,499,121, 3-3-70, Cl. 179-17.

Mc Intosh, Charles M., to International Business Machines Corporation. Eutectic lead bisilicate ceramic compositions and fired ceramic bodies. 3,540,894, 11-17-70, Cl. 106-39.

McIntosh, Euell K.; and Howse, Paul T., Jr., to Monsanto Company. Complex multilobal textile filament. 3,493,459, 2-3-70, Cl. 161-178.

McIntosh, Harold A., to Robertshaw Controls Company. Forked lever and grooved member construction. 3,522,822, 8-4-70, Cl. 137-607.

McIntosh, Harold A., to Robertshaw Controls Company. Valve construction with modulating diaphragm construction. 3,550,901, 12-29-70, Cl. 251-38.

Mc Intosh, Harold A.; and Wagner, Edmond M., to Robertshaw Controls Company, mesne. Soldering assembly and method. 3,517,150, 6-23-70, Cl. 219-9.5

McIntosh, James A., to Mack-Wayne Plastics Company. Plastic safety closure. 3,520,435, 7-14-70, Cl. 215-9.

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McIntyre, John S.; and Knight, Allan R., to Dow Chemical Company, The. 3-(alkoxyphenylcarbamoyl)-4-hydroxycoumarins. 3,511,856, 5-12-70, Cl. 260-343.2

Mc Intyre, John S.; and Knight, Allan R., to Dow Chemical Company, The. 2-(Bromomethyl)-2,3,4,5,-tetrahydro-7-(α- hydroxyphenyl)-5-oxo-1,4-oxazepine-6-carboxylic acid α-lactone. 3,546,213, 12-8-70, Cl. 260-239.3

McIntyre, Joseph H.; and Lemke, James H., to Case, J. I., Company. Transmission. 3,487,724, 1-6-70, Cl. 74-740.

McIntyre, Matthew, to Jervis Corporation. Right angle translator for remote control rearview mirrors. 3,533,303, 10-13-70, Cl. 74-501.

McIntyre, Maurice J., to Skagit Corporation. Pre-load transport system. 3,497,092, 2-24-70, Cl. 214-512.

McIntyre, Maurice J.; and Rennie, David G., to Skagit Corporation. Log yarding system. 3,543,946, 12-1-70, Cl. 212-84.

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McKay, Dwight L., to Phillips Petroleum Company. Liquid-solids separation method. 3,489,283, 1-13-70, Cl. 210-78.

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McKean, John M., to Vulcan-Denver Corporation. Slushing scraper cable connection. 3,489,226, 1-13-70, Cl. 172-26.5

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McKean, Robert J. Cut-off valve. 3,532,113, 10-6-70, Cl. 137-318.

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McKee, Fount E., to Tideland Signal Corporation. Two-stage power amplifier connected to autotransformer. 3,497,820, 2-24-70, Cl. 330-15.

McKee, Frederick Brian, to Marconi Company Limited, The. Microwave filters. 3,505,618, 4-7-70, Cl. 333-73.

McKee, Herbert A.; Kensil, Charles E.; and Udell, Walter B., said McKee, Kensil and Udell assors to said McKee, Kensil and Udell. Vibration inducing apparatus and method. 3,503,389, 3-31-70, Cl. 128-33.

McKee, James E.; McKee, Donald R.; and McKee, Charles F. Die-cut foldable structural units. 3,505,759, 4-14-70, Cl. 46-23.

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McKee, Lewis W., to Barden Corporation, The. Reinforced lubricating ball bearing cage. 3,529,875, 9-22-70, Cl. 308-201.

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McKellar, Robert L., to Dow Corning Corporation. Polyisocyanato silanes and siloxanes. 3,502,704, 3-24-70, Cl. 260-448.8

McKellen, Patrick Ewart; and Clayton, Dennis Albert, to Electric Power Storage Limited. Topping-up devices for electric batteries. 3,550,651, 12-29-70, Cl. 141-198.

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Borth, Paul; and McKeone, Joseph,3,514,409.
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McKeough, Daniel H., to I-T-E Imperial Corporation. Dead tank gas blast circuit breaker with interrupter structure immersed in low pressure of dead tank. 3,526,734, 9-1-70, Cl. 200-148.
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McLain, Charles D., to Olin Corporation. Copper base alloy. 3,522,039, 7-28-70, Cl. 75-157.5
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McLain, Philippe Hardy-The, to Soo Valley Company. Thread canister. 3,502,281, 3-24-70, Cl. 242-137.1
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McLamore, William M.; and Laubach, Gerald D., to Pfizer, Chas, & Co., Inc. 2,4-Disulfonyl halide substituted acylanilides. 3,551,483, 12-29-70, Cl. 260-543.
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McLaren, Richard H. Submarine distress float. 3,529,562, 9-22-70, Cl. 114-16.5
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McLean, Ronald L., to Houdaille Industries, Inc. Tuned viscous dampers. 3,495,459, 2-17-70, Cl. 74-574.
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Mehra, Vinodkumar; and Wolfe, William R., Jr., to Du Pont de Nemours, E. I., and Company. Process of producing electric current in fuel cell using chromium dioxide catalyst. 3,499,798, 3-10-70, Cl. 136-86.
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Meier, Hans, to Vaillant, Joh., KG. Gaseous fuel control for circulating heating systems. 3,490,693, 1-20-70, Cl. 237-8.
Meier, Hans; and Muller, Max Albert, to Vaillant, Joh., KG. Hot-water circulation heating system. 3,544,005, 12-1-70, Cl. 237-8.
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Meyer, Burton C.; Kramer, Norman; and Glass, Marvin I., to Glass, Marvin, & Associates. Electronic searching game. 3,508,751, 4-28-70, Cl. 273-101.1

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Meyer, Carl R. Fiberglass diving board having inner frame. 3,502,327, 3-24-70, Cl. 272-66.

Meyer, Carl X., to Emerson Electric Co. Lighting fixture. 3,549,879, 12-22-70, Cl. 240-147.

Meyer, Carl-Ludwig: *See—*
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Meyer, Charles F.; and Guettel, Marvin A., to Square D Company. Control for compensating for the effects of progressive mushrooming of the electrodes in a resistance welder apparatus. 3,546,421, 12-8-70, Cl. 219-110.

Meyer, Charles H., Jr.: *See—*
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Meyer, Christian, to Hofler, Jean, & Co., KG. Blow toy. 3,512,299, 5-19-70, Cl. 46-53.

Meyer, Curtis W. Holding means for pipes and accessories. 3,503,520, 3-31-70, Cl. 211-60.

Meyer, David, to Radiant International Incorporated. Inspirator burner. 3,544,246, 12-1-70, Cl. 431-352.

Meyer, David; and Greenberg, Sidney, to Radiant International Incorporated. Aspirator burner. 3,514,244, 5-26-70, Cl. 431-164.

Meyer, David: *See—*
El-Roy, Menahem; Irmay, Shragga; Blumberg, Ruth; Blumenthal, Rafael; Baniel, Avraham Matitiahu; Gonen, David; and Meyer, David,3,489,526.

Meyer, Delbert H.: *See—*
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Meyer, Dietrich; and Schott, Winfried, to U.S. Philips Corporation, mesne. Sine wave oscillator having an externally controlled impedance and an internally controlled impedance for producing linear frequency variations. 3,491,311, 1-20-70, Cl. 331-141.

Meyer, Donald J.: *See—*
Easley, Ralph S.; and Meyer, Donald J.,3,501,355.

Meyer, Donald R.; and Arel, Robert W., to Oster, John, Manufacturing Co. Automatic can opener. 3,550,271, 12-29-70, Cl. 30-4.

Meyer, Edward M., to General Electronic Laboratories, Inc. Audio record teaching system. 3,495,337, 2-17-70, Cl. 35-35.

Meyer, Edward, to Sylvania Electric Products, Inc. Electrical contact material and method of making and utilizing the same. 3,523,357, 8-11-70, Cl. 29-472.9

Meyer, Edwin L. Machine tool. 3,548,474, 12-22-70, Cl. 29-95.1

Meyer, Elwyn A.; and Brownfield, Charles L., to Emerson Electric Co. Cylindrical ammunition magazine for storing and discharging linked ammunition. 3,498,178, 3-3-70, Cl. 89-34.

Meyer, Emilio G., to Mine Safety Appliances Italiana, S.p.A. Infrared gas analyzer wherein the detector comprises two optically spaced thermisters separated by an absorbing gas. 3,517,189, 6-23-70, Cl. 250-43.5

Meyer, Engelbert A., to Warren Fastener Corporation. Structural assembly and clip. 3,508,371, 4-28-70, Cl. 52-717.

Meyer, Engelbert A., to Warren Fastener Corporation. Self-loading stud welding apparatus. 3,546,419, 12-8-70, Cl. 219-98.

Meyer, Engelbert A.; and Reid, Donald J., to Fostener, Warren, Corporation. Combination trim and carriers. 3,542,264, 11-24-70, Cl. 224-42.34

Meyer, Engelbert A.: *See—*
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Meyer, Erich, to Brockfeld & Meyer. Apparatus for smoothing and destalking tobacco leaves. 3,515,149, 6-2-70, Cl. 131-125.

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Meyer, Friedhelm: *See—*
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Meyer, Geo. J., Manufacturing Co.: *See—*
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Meyer, George L.N., Sr., 'Automatic' Sprinkler Corporation of America, mesne. Container filling apparatus. 3,500,880, 3-17-70, Cl. 141-40.

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Meyer, George P.; and Gushue, James. Vermin-proof building foundation. 3,513,586, 5-26-70, Cl. 43-124.

Meyer, Gerald J., to Giddings & Lewis, Inc. Door interlock system for electrical control cabinets. 3,534,186, 10-13-70, Cl. 200-50.

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Meyer, Gunther: *See—*
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Meyer, Gunther; and Cleemann, Johann, to Dynamit Nobel Aktiengesellschaft. Polyvinyl chloride treated with a fatty acid or salt thereof. 3,492,257, 1-27-70, Cl. 260-23.

Meyer, Gunther; Theilking, Heinrich; and Springorum, Meinhard. Process for drying and purifying post-chlorinated polyvinyl chloride. 3,513,561, 5-26-70, Cl. 34-10.
Meyer, Hans. Caliper rule. 3,505,741, 4-14-70, Cl. 33-143.
Meyer, Hans. Spring action oscillator. 3,520,127, 7-14-70, Cl. 58-23.
Meyer, Hans; and Carpanzano, Carmine, to Air-Tech. Industries Inc. Composite gymnasium mats. 3,526,911, 9-8-70, Cl. 5-345.
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Meyer, Harry M., Jr.; Parkman, Paul D.; Stewart, George L.; Hoppe, Hope E.; Meyer, Barbara C.; Douglas, Robert D.; and Hamilton, Judith P., to United States of America, Health, Education, and Welfare. Detection of rubella by hemagglutination- inhibition. 3,541,202, 11-17-70, Cl. 424-12.
Meyer, Harry, to Sil-O-Ette Sales Corporation. Panty girdle having means to adjustably lift and flatten a sagging abdomen. 3,513,854, 5-26-70, Cl. 128-528.
Meyer, Heinz W.; Winter, Heinz; Schmid, Dieter; and Schwarzer, Hans. Polymerization of olefinic compounds and polymerization catalyst. 3,494,898, 2-10-70, Cl. 260-78.5
Meyer, Herbert; and Mayer, Rudolf, to Hopt, R and E, Messrs., KG. Tuning device for high-frequency communication. 3,544,947, 12-1-70, Cl. 338-179.
Meyer, John E., Jr., to RCA Corporation. Coupling system for elemental panel array. 3,518,627, 6-30-70, Cl. 340-166.
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Meyer, Leo J., to Meyer Machine Company, a division of Ramo, Inc. Process and apparatus for separating casebearer larvae from nutmeats. 3,487,924, 1-6-70, Cl. 209-75.
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Meyer, Orrin E., to Union Carbide Corporation. Kerf compensation apparatus for an analog motor controlled cutting machine. 3,532,954, 10-6-70, Cl. 318-572.
Meyer, Peter W., to United Aircraft Corporation. Printed circuit board extractor. 3,535,594, 10-20-70, Cl. 317-101.
Meyer, Phillip O. Means for heating a body of liquid. 3,503,383, 3-31-70, Cl. 126-360.
Meyer, Raymond A., to North American Rockwell Corporation. Apparatus for measuring the intensity of visible lines representing the output data of an ion spectrometer. 3,541,327, 11-17-70, Cl. 250-41.9
Meyer, Richard J. Dart game assembly. 3,501,149, 3-17-70, Cl. 273-102.
Meyer, Richard Mayne, to General Photogrammetric Services Limited. Relief models. 3,539,410, 11-10-70, Cl. 156-58.
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Meyer, Robert E., to United States of America, Navy, mesne. Strip processing system. 3,516,345, 6-23-70, Cl. 95-89.
Meyer, Robert G., to Gregory System Incorporated. Depilation by means of laser energy. 3,538,919, 11-10-70, Cl. 128-398.
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Meyer, Roy E. Tower elevator. 3,517,774, 6-30-70, Cl. 187-6.
Meyer, Roy E. Elevator. 3,517,775, 6-30-70, Cl. 187-12.
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Meyer, Svend Scheel, to Denske Securitas A/S. Electric alarm system, preferably for a fire alarm. 3,516,083, 6-2-70, Cl. 340-237.
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Michalik, Edmund R.; and Spencer, Arthur C., to PPG Industries, Inc. Method and apparatus for controlling temporary stresses during the formation of a glass ribbon from a molten pool. 3,536,463, 10-27-70, Cl. 65-95.

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Michalko, Edward, to Universal Oil Products Company. Hydrocarbon conversion catalyst. 3,503,874, 3-31-70, Cl. 208-120.

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Michalowicz, William A., to Koppers Company, Inc. Aromatic quinone production. 3,541,115, 11-17-70, Cl. 260-385.

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Michel, Lewis Davis, to United Medical Laboratories, Inc. Urine culture kit. 3,487,912, 1-6-70, Cl. 206-1.

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Micheli, Amelio P., to United Electric Controls Company. Proportioning control circuit. 3,529,180, 9-15-70, Cl. 307-265.

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Michelson, Charles, to Teverama S.A. Cinematographic film. 3,502,399, 3-24-70, Cl. 352-37.

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Mickelson, Floyd Louis; Roberts, Wilbert Joseph; and Lancy, Michael Joseph, to Diversey Corporation, The. Process for surface treatment of metal expansion alloys. 3,530,017, 9-22-70, Cl. 156-20.

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Miller Brewing Company: *See—*
Fly, Walter H.; and Westermann, Donald H., 3,536,495.
Miller Brothers: *See—*
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Miller, Norman K., 3,530,925.
Miller, Bruce D. Refrigerant purifying means. 3,534,564, 10-20-70, Cl. 62-470.
Miller, Carl A., to Economics Laboratory, Inc. Injector pump apparatus. 3,547,560, 12-15-70, Cl. 417-375.
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Miller, Carl S. Drill press control device. 3,523,470, 8-11-70, Cl. 77-5.
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Miller, Charles F., to North American Rockwell Corporation, mesne. Variable feeding mechanism for knitting pile fabric. 3,495,422, 2-17-70, Cl. 66-9.
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Miller, Charlie D. Method of and apparatus for controlling a refrigeration machine. 3,508,416, 4-28-70, Cl. 62-84.
Miller, Charlie D.; and O'Hara, Arthur C. Moving target devices. 3,533,624, 10-13-70, Cl. 273-105.2
Miller, Chauncey S., to Sperry Rand Corporation. Frequency stepped phase shift keyed communication system. 3,493,866, 2-3-70, Cl. 325-30.
Miller, Chauncey S., to Westinghouse Electric Corporation. Remote signaling of control signals. 3,551,889, 12-29-70, Cl. 340-171.
Miller, Christian F., to Valve Corporation of America, mesne. Mold apparatus for closure with integral cap. 3,537,676, 11-3-70, Cl. 249-59.
Miller, Clarence D., to Chicago Bridge & Iron Company. Offshore storage tank with self-contained guy system. 3,524,323, 8-18-70, Cl. 61-46.5
Miller, Clark O., to Lubrizol Corporation, The. Fuel oil-water composition containing metal oxide. 3,540,866, 11-17-70, Cl. 44-51.
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Miller, Coleman J., to United States of America, Navy, mesne. Light amplifier with unidirectional characteristics. 3,539,940, 11-10-70, Cl. 331-94.5
Miller, Conrad H., to Hoyt Corporation. Gas fired chick brooder device. 3,505,976, 4-14-70, Cl. 119-32.
Miller, Cort L., to Eastman Kodak Company. High temperature bearing seal construction. 3,527,512, 9-8-70, Cl. 308-187.2
Miller, Daniel D., to Doban Labs., Inc. Display device. 3,535,030, 10-20-70, Cl. 353-36.
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Miller, David C., to General Electric Company. Formed plastic package with snap-in closure. 3,523,608, 8-11-70, Cl. 206-65.
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Miller, Donald Floyd, to Du Pont de Nemours, E. I., and Company. Rotary ball apparatus for crimp deregistration. 3,491,409, 1-27-70, Cl. 19-65.
Miller, Donald G., to General Motors Corporation. Thoria dispersion strengthened nickel aluminide and method of making. 3,520,675, 7-14-70, Cl. 75-0.5
Miller, Donald J.: *See—*
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Miller, Donald V., to Air Reduction Company, Incorporated. Method of purging a socket cavity of a meat animal carcass. 3,498,797, 3-3-70, Cl. 99-107.
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Miller, Earle C., to Stoker, Riley, Corporation. Air flow regulator for a pulverizer. 3,491,954, 1-27-70, Cl. 241-41.

Miller, Earle C., to Stoker, Riley, Corporation. Pulverizer. 3,497,143, 2-24-70, Cl. 241-56.

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Miller, Edwin A., to Texas Instruments, Incorporated. Composite material for use in cookware, heat transfer materials and the like. 3,490,126, 1-20-70, Cl. 29-196.3

Miller, Eldon S. Conveyor and link. 3,513,965, 5-26-70, Cl. 198-195.

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Miller, Emery P., to Ransburg Electro-Coating Corporation. Electrostatic coating method. 3,513,011, 5-19-70, Cl. 117-17.

Miller, Ervin R., to Chrysler Corporation. Transmission shifting mechanism. 3,526,151, 9-1-70, Cl. 74-477.

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Miller, Eugene J., Jr.; and Tiefenthal, Harlan E., to Armour Industrial Chemical Company, mesne. Aryl-substituted aliphatic amine oxides. 3,494,962, 2-10-70, Cl. 260-570.8

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Miller, Fred F., Jr., to Dana Corporation. Constant velocity universal joint. 3,550,396, 12-29-70, Cl. 64-21.

Miller, Fred K., to Buehler Corporation, The. Precision assembly manufacturing method and apparatus. 3,488,830, 1-13-70, Cl. 29-493.

Miller, Frederick W., III, to Extracorporeal Medical Specialties, Inc. Disposable, low-prime, spirally wound, artificial kidney. 3,508,662, 4-28-70, Cl. 210-321.

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Miller, Fredric S. Dispensing device for granular material. 3,542,252, 11-24-70, Cl. 222-284.

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Miller, George J. Pitching game. 3,507,496, 4-21-70, Cl. 273-100.

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Miller, George T., to Hooker Chemical Corporation. Stable phosphorus containing solutions. 3,510,327, 5-5-70, Cl. 106-287.

Miller, George T., to Hooker Chemical Corporation. Fuel cell electrode and process. 3,544,379, 12-1-70, Cl. 136-86.

Miller, George T., to Hooker Chemical Corporation. Fuel cell with wicking-type electrode. 3,544,381, 12-1-70, Cl. 136-86.

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Miller, George W. Psychedelic clock. 3,514,938, 6-2-70, Cl. 58-2.

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Miller, Gerald R., to Ford Motor Company. Shock absorber and air spring assembly. 3,497,198, 2-24-70, Cl. 267-35.

Miller, Gerald R.; and Oldham, James, to Ford Motor Company. Hydraulic shock absorber with temperature responsive valve. 3,532,195, 10-6-70, Cl. 188-100.

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Miller, Gerald W., to Mobay Chemical Company. Polycarbonates stabilized with halogen-containing organo silicon compounds. 3,509,090, 4-28-70, Cl. 260-45.7

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Miller, Harry, to Sperry Rand Corporation. Dual channel servo system having torque equalization. 3,504,248, 3-31-70, Cl. 318-18.

Miller, Harry, to Sperry Rand Corporation. Clutch mechanism. 3,505,912, 4-14-70, Cl. 74-626.

Miller, Harry, to Sperry Rand Corporation. Airspeed command system. 3,522,729, 8-4-70, Cl. 73-178.

Miller, Harvey Q. Holding apparatus for loads adapted to be strapped to the back of humans. 3,490,727, 1-20-70, Cl. 248-313.

Miller, Henry C.; and Muetterties, Earl L., to Du Pont de Nemours, E. I., and Company. Substituted dodecaborates. 3,551,120, 12-29-70, Cl. 23-358.

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Miller, Herron W., to Hercules Incorporated. Method of reducing polypropylene particle size. 3,536,645, 10-27-70, Cl. 260-28.5

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Miller, Howard C., to Morton International, Inc. Salt substitute composition. 3,505,082, 4-7-70, Cl. 99-143.

Miller, Howard C., to Morton International, Inc. Corrosion inhibiting salt compositions containing sodium tripolyphosphate, aluminum sulfate, and a soluble ferrocyanide. 3,542,686, 11-24-70, Cl. 252-70.

Miller, Ian Crichton. Door fastener. 3,527,490, 9-8-70, Cl. 292-336.3

Miller, Ivan Keith, to Du Pont de Nemours, E. I., and Company. Highly absorbent cellulose ethers. 3,525,735, 8-25-70, Cl. 260-231.

Miller, Jack, to Kennametal Inc. Percussion bit. 3,519,092, 7-7-70, Cl. 175-410.

Miller, Jack. Automated coin depository with dual signal. 3,537,561, 11-3-70, Cl. 194-92.

Miller, James A., to Morgan Adhesive Company. Pressure sensitive adhesive composition. 3,519,585, 7-7-70, Cl. 260-27.

Miller, James C.; and Wine, Charles M., to RCA Corporation. Data conversion and display apparatus. 3,521,268, 7-21-70, Cl. 340-324.

Miller, James C.; and Wine, Charles M., to RCA Corporation. Light pen operating with remote graphic display. 3,543,240, 11-24-70, Cl. 340-172.5

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Miller, John A., to United States of America, Army. Subminiature reefing line cutter. 3,523,477, 8-11-70, Cl. 83-639.

Miller, John A.; and Nash, Donald H., to Bell Telephone Laboratories, Incorporated. Gyrator circuit utilizing a plurality of cascaded pairs of insulated-gate, field effect transistors. 3,518,584, 6-30-70, Cl. 333-80.

Miller, John D. Portable stove. 3,511,222, 5-12-70, Cl. 126-9.

Miller, John D., to Anderson-Miller Mfg. Co. Movable irrigation pipeline system. 3,512,548, 5-19-70, Cl. 137-344.

Miller, John Everett. Ratio and proportion demonstrating device. 3,531,877, 10-6-70, Cl. 35-30.

Miller, John F. Combination tool. 3,508,455, 4-28-70, Cl. 81-58.1

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Miller, John R. Sugar mill feeding. 3,536,002, 10-27-70, Cl. 100-43.

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Miller, Kenneth; and Merritt, Harlan B., to United States of America, Navy. Scale changing gear mechanism. 3,535,943, 10-27-70, Cl. 74-89.17

Miller, Kenyon W.; and Shelor, Clifford D., to Westvaco Corporation. Steam distribution system. 3,531,053, 9-29-70, Cl. 239-553.

Miller, Lalan G., to Westinghouse Electric Corporation. Load weight circuit for traction motor control systems. 3,543,113, 11-24-70, Cl. 318-142.

Miller, Lalan G., to Westinghouse Electric Corporation. Jerk limit circuit for traction motor control systems. 3,543,121, 11-24-70, Cl. 318-393.

Miller, Larry J., Single handle faucet valve. 3,526,250, 9-1-70, Cl. 137-625.4

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Miller, Leonard E.; and Murfin, Donald L., to Lubrizol Corporation, The. Alpha-sulfo-N,N'-alkylidene bis-amide polymers. 3,531,442, 9-29-70, Cl. 260-79.3

Miller, Leonidas C. Telescopic positioner for induction heating coil. 3,495,063, 2-10-70, Cl. 219-10.75

Miller, Leonidas C. Apparatus for applying heat and pressure. 3,533,352, 10-13-70, Cl. 100-93.

Miller, Leonidas C. Adjustable induction heating head for a coaxial cable. 3,534,198, 10-13-70, Cl. 219-10.79

Miller, Leroy J.; and Rust, John B., to Hughes Aircraft Company. Photopolymer polymerization fixation process and products. 3,531,282, 9-29-70, Cl. 96-48.

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Miller, Lewis S., to Weyerhaeuser Company. Method of making a tack-free surface coating utilizing high energy radiation. 3,520,714, 7-14-70, Cl. 117-62.2

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Miller, Malan R. Clutch release and gear change mechanism for tranamission. 3,517,788, 6-30-70, Cl. 192-3.5

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Miller, Marshall W., to General Motors Corporation. Transmission control and indicator apparatus. 3,550,551, 12-29-70, Cl. 116-124.

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Miller, Max W., to Pfizer, Chas., & Co., Inc.Certain 3-nitroimidazo-[1,2,α]pyridines. 3,509,167, 4-28-70, Cl. 260-296.

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Miller, Merlin S.: *See—*
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Miller, Monroe A., to Milgo Electronic Corporation. Analog integrating system with variable time scale. 3,541,318, 11-17-70, Cl. 238-183.

Miller, Nathan. Golf ball including planar mirror surface. 3,540,735, 11-17-70, Cl. 273-183.

Miller, Nigel R. Tail set crupper of moldable reinforced plastic. 3,534,527, 10-20-70, Cl. 54-22.

Miller, Norman H. Ordnance lift. 3,524,556, 8-18-70, Cl. 214-1.

Miller, Norman K.: *See—*
Miller, Norman K., 3,509,360.

Miller, Norman K., to Miller Brothers, a partnership composed of Miller, Karl K. Miller, Arsen K., and Miller, Norman K. Safety-stop device. 3,509,360, 4-28-70, Cl. 307-119.

Miller, Norman K., to Miller Brothers. Door construction having pneumatic cushion. 3,530,925, 9-29-70, Cl. 160-180.

Miller, Orville C.: *See—*
Sauer, Louis E.; and Miller, Orville C.,3,498,716.
Sauer, Louis E.; and Miller, Orville C.,3,507,179.

Miller, Park H., Jr.; and Whittemore, William L., to Gulf Energy & Environmental Systems, Inc., mesne. Method and apparatus for modulating the density of a beam of particles and determining the velocity distribution of the particles. 3,551,675, 12-29-70, Cl. 250-83.1

Miller, Paul E.: *See—*
Gates, John W., Jr.; and Miller, Paul E.,3,539,353.

Miller, Paul H., to Atlas Chemical Industries, Inc. Method and device for blasting. 3,537,399, 11-3-70, Cl. 102-70.2

Miller, Paul J., 25% to Schovee, John R., and 25% to Thomson, Winslow E. Recipe measuring device. 3,530,722, 9-29-70, Cl. 73-427.

Miller, Paul J.; Chen, Karl K.; Jeromson, James R., Jr.; and Wellman, Ellis M., to Weatherhead Company, The. Quick connect coupling. 3,540,760, 11-17-70, Cl. 285-321.

Miller, Paul R.: *See—*
Donato, Anthony J.; and Miller, Paul R.,3,540,009.

Miller, Paul W., to Wean Industries, Inc. Methods of and apparatus for transferring successive sheets of material. 3,519,267, 7-7-70, Cl. 271-76.

Miller, Philip, to Hicks and Otis Prints, Incorporated. Contoured ornamentation of laminated resilient materials. 3,507,729, 4-21-70, Cl. 156-209.

Miller, Philip; and Montgomery, Carroll Sherman, to American Cyanamid Company. Process for preparing 1-loweralkyl-5-nitroimidazoles. 3,549,626, 12-22-70, Cl. 260-240.

Miller, Phillip A., to Sierracin Corporation, The. Selective temperature lamination of dissimilar composite panels. 3,539,412, 11-10-70, Cl. 156-106.

Miller Printing Machinery Co.: *See—*
Mowry, Harry E.; and Werner, Guy F., 3,537,391.

Miller, R. H., Company, Inc.: *See—*
Schwartz, Norbert C., 3,544,614.

Miller, Ralph A.: *See—*
Roper, William H.; Roper, Robert E.; and Roper, Charles R., 3,515,306.
Roper, William H.; Roper, Robert E.; and Roper, Charles R., 3,516,571.

Miller, Ralph E.: *See—*
Boettner, George B.; Can, Yilmaz; Fanning, Edward F.; Miller, Ralph E.; and Preston, Frank W.,3,524,206.

Miller, Ralph H., Jr.: *See—*
McManus, Robert P.; Miller, Ralph H., Jr.; Wirth, Herman J.; Kinkel, Lester J.; and Dickard, Theodore C., Jr.,3,495,215.

Miller, Ralph L., to Bell Telephone Laboratories, Incorporated. Apparatus for deriving pitch information from a speech wave. 3,488,446, 1-6-70, Cl. 179-15.55

Miller, Ralph L., to Bell Telephone Laboratories, Incorporated. Frequency encoded digital transmission with each encoded frequency continuously swept over a band of frequencies. 3,493,865, 2-3-70, Cl. 325-30.

Miller, Ralph L., to Bell Telephone Laboratories, Incorporated. Fundamental frequency detector. 3,535,454, 10-20-70, Cl. 179-1.

Miller, Raymond C. Dirt trap. 3,511,379, 5-12-70, Cl. 210-194.

Miller, Regis R., to Haskell Manufacturing Co. Pedestal desk with drawer lock. 3,539,236, 11-10-70, Cl. 312-221.

Miller, Richard A.: *See—*
Coles, Robert F.; Errede, Louis A.; and Miller, Richard A.,3,533,788.
Coles, Robert F.; Miller, Richard A.; and Tulagin, Vsevolod,3,499,902.

Miller, Richard C.: *See—*
Alstad, John K.; Bate, Geoffrey; Miller, Richard C.; Morrison, John R.; and Speliotis, Dennis,3,498,837.

Miller, Richard Dale: *See—*
Vanderlaan, Dirk; Thomas, Jack Denney; and Miller, Richard Dale,3,490,404.

Miller, Richard D., to Western Gear Corporation. Change-speed transmission for weapons system. 3,490,568, 1-20-70, Cl. 192-3.5

Miller, Richard E.: *See—*
Harris, Everett K.; Ericson, John P.; and Miller, Richard E.,3,549,301.

Miller, Richard George, to Illinois Tool Works Inc. Adjustable nosepiece for power screwdriver. 3,524,484, 8-18-70, Cl. 144-32.

Miller, Richard H. Chair construction. 3,526,433, 9-1-70, Cl. 297-440.

Miller, Richard H.; and Termaat, Keith B., to Ford Motor Company. Window cleaning system. 3,513,499, 5-26-70, Cl. 15-250.01

Miller, Richard Lawrence: *See—*
Field, Sheldon B.; Pangalila, Frans V.; Miller, Richard Lawrence; and Grigoraki, Nicholas Mark,3,516,377.

Miller, Richard M., to Nalco Chemical Company. Reducing fouling in refining of petroleum products by salicylidene additive. 3,492,219, 1-27-70, Cl. 208-48.

Miller, Richard M.: *See—*
Newkirk, John D.; and Miller, Richard M.,3,503,723.

Miller, Robert A., to Stanley Works, The. Cantilever mounted sliding and swinging door. 3,491,483, 1-27-70, Cl. 49-141.

Miller, Robert A., to Stanley Works, The. Serpentine cross section frame assembly. 3,526,074, 9-1-70, Cl. 52-731.

Miller, Robert Carleton, to Du Pont de Nemours, E. I., and Company. Method of reducing lacquer throwing. 3,524,758, 8-18-70, Cl. 117-102.

Miller, Robert C., to International Business Machines Corporation. Package for and method of packaging pathology specimens. 3,532,412, 10-6-70, Cl. 350-95.

Miller, Robert C.; and Sherer, John H., Jr., to International Business Machines Corporation. Document handling apparatus. 3,514,099, 5-26-70, Cl. 271-51.

Miller, Robert Charles, to Sylvania Electric Products, Inc. Hermetic seal for a thin-walled container. 3,489,266, 1-13-70, Cl. 206-2.

Miller, Robert C.: *See—*
Maynard, Kenneth B.; and Miller, Robert C.,3,531,035.

Miller, Robert E., to Monsanto Company. Reinforced polymeric compositions and process of preparation thereof. 3,488,319, 1-6-70, Cl. 260-47.

Miller, Robert E., to British Oxygen Company Limited, The. Fluid mixing device. 3,538,933, 11-10-70, Cl. 137-81.5

Miller, Robert E.: *See—*
Fanger, Gene O.; Miller, Robert E.; and Mc Niff, Richard G.,3,531,418.

Miller, Robert F. Longitudinally shiftable bumper. 3,488,077, 1-6-70, Cl. 293-73.

Miller, Robert F.; and Miller, Roy E. Automatic control and thread cutter for sewing machines. 3,528,379, 9-15-70, Cl. 112-219.

Miller, Robert G.: *See—*
Costa, Philip J.; and Miller, Robert G.,3,536,970.

Miller, Robert G. Hand-held switching device with interlocked trigger actuating means. 3,511,951, 5-12-70, Cl. 200-157.

Miller, Robert G., to Caterpillar Tractor Company. Speed-programmed friction welder control. 3,542,274, 11-24-70, Cl. 228-2.

Miller, Robert J.: *See—*
Clayton, William J.; Miller, Robert J.; and Smith, Clair C.,3,550,839.

Miller, Robert K.: *See—*
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Miller, Robert L.; Webb, Ernest C.; Mentzer, Everett K.; and Peplin, Stephen C., to Brunswick Corporation, mesne. Apparatus for selectively returning bowling balls to storage pockets. 3,501,145, 3-17-70, Cl. 273-49.

Miller, Robert M. Image storage device. 3,509,564, 4-28-70, Cl. 343-7.9

Miller, Robert N.: *See—*
Councilman, Richard R.; and Miller, Robert N.,3,524,987.

Miller, Robert O.; and Mattano, Leonard A., to Dow Chemical Company, The. Synthetic detergent bar. 3,503,888, 3-31-70, Cl. 252-117.

Miller, Robert W., Jr.: *See—*
Masaschi, Joseph B.; Miller, Charles A., Jr.; and Miller, Robert W., Jr.,3,513,980.
Gray, Jack N.; Clarkson, Robert J.; and Miller, Robert,3,507,607.

Miller, Robert; Farber, Milton; and Shichman, Daniel, to Uniroyal, Inc. Dye-bath treatment for polymeric articles. 3,502,422, 3-24-70, Cl. 8-4.

Miller, Roger A.; and Issenmann, Edward S., to United States of America, Air Force. Installation of inertial dust filter on airport runway and/or street cleaning equipment. 3,505,703, 4-14-70, Cl. 15-340.

Miller, Roger A.: *See—*
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Miller, Roger I., to Aerojet-General Corporation. Process for production of a composition from carbon monoxide and nitrogen. 3,505,189, 4-7-70, Cl. 204-157.1

Miller, Roland E.; Borgardt, Henry; and Olson, Edgar C., to Kraftco Corporation. Cheese packaging method and apparatus. 3,544,340, 12-1-70, Cl. 99-178.

Miller, Roland E.; Wayne, Clyde D.; and Olson, Edgar C., to National Dairy Products Corporation. Distribution method and system. 3,489,044, 1-13-70, Cl. 83-27.

Miller, Rolland L., to Robertson, H. H., Company. Closures. 3,509,663, 5-5-70, Cl. 49-248.

Miller, Ronald Earl, to Hendrickson Mfg., Co. Vehicle suspension. 3,545,787, 12-8-70, Cl. 280-104.5

Miller, Ronald J.: *See—*
Buscher, Richard G.; and Miller, Ronald J.,3,492,465.

Miller, Roy E.: *See—*
Miller, Robert F.; and Miller, Roy E.,3,528,379.

Miller, Roy W., to Pullman Incorporated. Open top railroad car having a removable roof structure therefor. 3,504,637, 4-7-70, Cl. 105-377.

Miller, Roy W., to Pullman Incorporated. Container bracket arrangement. 3,547,048, 12-15-70, Cl. 105-366.

Miller, Russell E.: *See—*
Russell, Robert J.; and Miller, Russell E.,3,499,212.

Miller, Samuel E., to Quick Service Textiles, Inc. Apparatus for feeding and cutting strip material. 3,515,081, 6-2-70, Cl. 112-130.

Miller, Samuel R. F., to Cammell Laird (Shiprepairers) Limited. Supporting and manipulating equipment for shot blasting apparatus. 3,548,541, 12-22-70, Cl. 51-8.

Miller Screen and Design, Inc.: *See—*
Miller, Henry L.; and Strutz, Frank C., 3,492,943.

Miller, Silas N.: *See—*
Kough, John K.; and Kough, Blair B., 3,509,676.

Miller, Solomon G.; and Bilson, David G., to Miller Laundry Machinery Company. Shell-less laundry washer construction. 3,487,663, 1-6-70, Cl. 68-139.

Miller, Solomon G.; and Bilson, David G., to Miller Laundry Machinery Company. Commercial laundry dryer. 3,512,268, 5-19-70, Cl. 34-108.

Miller, Stewart E., to Bell Telephone Laboratories, Incorporated. Spatially periodic coupling for modes having differing propagation constants and traveling wave tube utilizing same. 3,529,205, 9-15-70, Cl. 315-3.5

Miller, Stewart E., to Bell Telephone Laboratories, Incorporated. Optical fiber waveguide structures. 3,535,017, 10-20-70, Cl. 350-96.

Miller, Stewart E., to Bell Telephone Laboratories, Incorporated. Multi-phase differential-phase-modulated PCM repeater. 3,543,162, 11-24-70, Cl. 325-7.

Miller, Theodore H.: *See—*
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Lecocq, Gerald W., 3,491,329.
Lecocq, Gerald W., 3,550,063.

Miller, Thomas E. Dragline toy. 3,517,948, 6-30-70, Cl. 294-55.

Miller Trailers, Inc.: *See—*
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Miller, Vernon F.; and Feilmann, Robert P., to Rohm & Haas Company. Electroplating of polymeric materials having a polymeric primer coating. 3,505,098, 4-7-70, Cl. 117-71.

Miller, Walter A.: *See—*
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Miller, Walter E., Jr.; Peacher, Teddy J.; and Fountain, Walter F. Optical tracker with an L shaped aperture for the photomultiplier tube. 3,493,766, 2-3-70, Cl. 250-207.

Miller, Walter E., Jr.: *See—*
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Miller, Ward B.: *See—*
van Anderson, Cecil; and Miller, Ward B.,3,509,251.

Miller, Warren H., Jr.; and Beaton, Claude C., to Mohawk Data Sciences Corporation, mesne. Hub for tape reels. 3,490,716, 1-20-70, Cl. 242-68.3

Miller, Wendell S. Frustrated total internal reflection laser system. 3,538,453, 11-3-70, Cl. 331-94.5

Miller, Wendell V.: *See—*
Hart, William S.; and Miller, Wendell V.,3,541,713.

Miller, William A.; and Pizzano, Roman J., to Allied Chemical Corporation. Vibratory conveyors. 3,524,533, 8-18-70, Cl. 198-220.

Miller, William A.; and Sleggs, Alton C., to Carborundum Company, The, mesne. Coated beta-silicon carbide whiskers and process for their production. 3,513,019, 5-19-70, Cl. 117-123.

Miller, William C.: *See—*
Smith, Lester L.; and Miller, William C.,3,524,934.
Wedmore, William R.; and Miller, William C.,3,532,829.
Wirsing, Howard L.; and Miller, William C.,3,533,073.

Miller, William G.: *See—*
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Miller, William H. System for monitoring and adjusting power demand. 3,522,421, 8-4-70, Cl. 235-151.21

Miller, William K.: *See—*
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Miller, William K.; Katz, Seymour; and Bach, Willard W., to General Motors Corporation. Method of making a popcorn energy absorber. 3,511,899, 5-12-70, Cl. 264-26.

Miller, William N., Jr.; and Emus, Ronald. Traveling sign board. 3,497,978, 3-3-70, Cl. 40-32.

Miller, William P.: *See—*
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Miller, William R.; Gasper, Steve M.; and Martin, Robert, to Royal-T Company, mesne. Bassinette. 3,513,489, 5-26-70, Cl. 5-98.

Miller, William T. Fishing reel with electric winding means. 3,512,729, 5-19-70, Cl. 242-84.2

Miller, William V., to TRW Inc. Fluidic accelerometer. 3,499,331, 3-10-70, Cl. 73-515.

Miller, Willis D.; and Welsh, James P., to Caterpillar Tractor Company. Oil filter mounting. 3,513,979, 5-26-70, Cl. 210-232.

Miller, Willis D.; and Welsh, James P., to Caterpillar Tractor Company. Flow switch. 3,536,873, 10-27-70, Cl. 200-81.9

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Miller-Thomas Corporation: *See—*
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Milles, Karl Leonhard: *See—*
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Millet, Francois: *See—*
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Millet, Jaques F.; Graziotti, Raoul; and Guillou, Michel M., to Electricit de France (Service National). Hot electrodes for magnetohydrodynamic generators, in particular of the open cycle type. 3,508,087, 4-21-70, Cl. 310-11.

Milletron Incorporated: *See—*
Deczky, Andor Jenoe, 3,527,097.
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Millette, Raymond G.: *See—*
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Milleville, Bertram J., to Rockwell Manufacturing Company. Weld end fittings. 3,514,130, 5-26-70, Cl. 285-173.

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Millhone, Ralph S.; Love, Chester L.; Allen, Alexander S., Jr.; and De Priester, Coral L., to Chevron Research Company. Method of consolidating earth formations using diverting agent. 3,511,315, 5-12-70, Cl. 166-295.

Millhone, Ralph S.; Love, Chester L.; Allen, Alexander S., Jr.; and DePriester, Coral L., to Chevron Research Company. Method of consolidating earth formations without removing tubing from well. 3,489,222, 1-13-70, Cl. 166-290.

Milli-Switch Corporation: *See—*
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Millican, Joel C. Suspension system for automobiles. 3,547,466, 12-15-70, Cl. 280-124.

Millich, Frank; and Carraher, Charles E. Buffering agents in interfacial phosphorus polyester process. 3,491,061, 1-20-70, Cl. 260-47.

Millidge, Alfred Frank: *See—*
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Hawkins, Edwin George Edward; Millidge, Alfred Frank; and Stanley, Herbert Muggleton,3,492,339.

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Millier, William F.; Rehkugler, Gerald E.; Ryan, Kenneth E.; and Throop, James A., to Cornell Research Foundation, Inc. Harvesting apparatus. 3,522,696, 8-4-70, Cl. 56-328.

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Milligan, Charles L.; Ward, Robert J.; and Martin, Robert A., to Union Carbide Corporation. Hexadienol and hexadienal derivatives. 3,520,839, 7-21-70, Cl. 260-20.

Milligan, Virgil M. Pavement cutter. 3,515,435, 6-2-70, Cl. 299-40.

Millikan, Allan G., to Eastman Kodak Company. Organic scintillating layer in a photographic element. 3,491,235, 1-20-70, Cl. 250-49.5

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Millikan, Benson U. Trailer hitch. 3,542,395, 11-24-70, Cl. 280-406.

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Milliken, Jesse E.: *See—*
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Milliken, Kenneth Leslie. Decorative container. 3,501,256, 3-17-70, Cl. 431-291.

Milliman, Roger Duane, to Sylvania Electric Products, Inc. Electrical contact welder. 3,524,964, 8-18-70, Cl. 219-103.

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Mills, Albert D., to Continental Machines, Inc. Apparatus for minimizing vibration in band sawing machines. 3,534,647, 10-20-70, Cl. 83-201.15

Mills, Allan K., to Brittain Industries Inc. Attitude indicator. 3,525,159, 8-25-70, Cl. 33-204.

Mills, Brian Edward: *See—*
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Mills, Frank S., to Honeywell Inc. Polarographic cell with composite electrode-diffusion medium. 3,510,420, 5-5-70, Cl. 204-195.

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Flank, William H.; McEvoy, James E.; and Mills, George Alexander,3,515,683.
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Mills, George C. Method and means for stabilizing concrete slab structures. 3,543,459, 12-1-70, Cl. 52-169.

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Mills, Glen W., 50% to Kennon, Willard L. Harmonograph. 3,496,641, 2-24-70, Cl. 33-27.

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Mills, Iain C., to Dunlop Company Limited, The. Pneumatic tire. 3,547,174, 12-15-70, Cl. 152-209.

Mills, Ivor W.; and Cohen, Stephen D., to Sun Oil Company. Floor sweeping composition comprising finely divided solids, petroleum oil, and atactic propylene polymer. 3,533,953, 10-13-70, Cl. 252-88.

Mills, Ivor W.; and Dimeler, Glenn R., to Sun Oil Company. Process for producing cable oils by sequential refining steps. 3,502,567, 3-24-70, Cl. 208-14.

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Mills, James M.; and Coomer, Floyd E., to Bowser, Inc. Check valve for filter apparatus. 3,502,214, 3-24-70, Cl. 210-136.

Mills, John C., to Commonwealth Scientific and Industrial Research Organization. Mechanism for tilting specimens in electron microscopes and electron diffraction cameras. 3,488,493, 1-6-70, Cl. 250-49.5

Mills, John C., to Ford Motor Company. Door edge guard. 3,513,595, 5-26-70, Cl. 49-462.

Mills, John E., to USM Corporation. Sole old assemblies. 3,514,814, 6-2-70, Cl. 18-42.

Mills, Justin W., Jr., to Lif-O-Gen, Inc. Single stage pressure regulator. 3,547,143, 12-15-70, Cl. 137-315.

Mills, Justin W.: *See—*
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Mills, Kenneth R.: *See—*
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Mills, Lionel William, to Steelweld Limited. Friction welding apparatus with micrometer weld control. 3,549,076, 12-22-70, Cl. 228-2.

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Mills, Norman Thomas; Jackson, Charles Richard; and Halley, James Wood, to Inland Steel Company. Method of introducing molten into a continuous casting mold. 3,517,726, 6-30-70, Cl. 164-82.

Mills, Robert G., to Dresser Industries, Inc. Speed triggering device. 3,504,556, 4-7-70, Cl. 74-96.

Mills, Robert J. Feed bucket retaining apparatus. 3,490,726, 1-20-70, Cl. 248-313.

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Mills, Thomas F., Jr.: *See—*
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Mills, Walter H., to Anchor Hocking Glass Corporation. Crystallizable lead borosilicate compositions for use as low thermal expansion, devitrifying solder glasses or coatings. 3,503,763, 3-31-70, Cl. 106-53.

Mills, Warren L. Inner tone for a musical instrument. 3,487,742, 1-6-70, Cl. 84-384.

Mills, William R., Jr., to Mobil Oil Corporation. Detection of chemical binding of hydrogen. 3,497,692, 2-24-69, Cl. 250-83.1

Mills, William R., Jr.; and Allen, Linus S., Jr., to Mobil Oil Corporation. Pulsed neutron operations, use of single detector to obtain measurements of porosity and chemistry of unknown substances. 3,509,346, 4-28-70, Cl. 250-83.6

Millsap, Wayne A.; and Peterson, Hal D., to Molybdenum Corporation of America. Solvent extraction process for separating europium from other rare earths. 3,524,723, 8-18-70, Cl. 23-22.

Millward, James, to Rolls-Royce Limited. Gas turbine by-pass engine. 3,545,209, 12-8-70, Cl. 60-226.

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Adcox, L. D., 3,522,691.

Milne, John C., to Electric Construction (W'Ton) Limited. Voltage stabilization system utilizing a buck- boost generator. 3,544,883, 12-1-70, Cl. 323-5.

Milner, Edwin Earl, Jr., to Baker Equipment Engineering Company. Boom structure for utility trucks and the like. 3,533,515, 10-13-70, Cl. 212-69.

Milner, James Aidan: *See—*
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Milner, James G. Centrifugal separator. 3,493,120, 2-3-70, Cl. 210-512.

Milner, John Kendell, to Brown and Williamson Tobacco Corporation. Mouthpiece tobacco articles. 3,518,999, 7-7-70, Cl. 131-94.

Milner, Lucy Eveline, to Wolsey Limited. Article of clothing. 3,499,172, 3-10-70, Cl. 2-240.

Milner, Roger King, Limited: *See—*
King, Roger M., 3,529,416.

Milo, August. Frost heave-protected shut-off valve. 3,515,157, 6-2-70, Cl. 137-68.

Milo, August. Leak detector for pumped liquid systems. 3,541,283, 11-17-70, Cl. 200-84.

Milochevitch, Alexandre, to Compagnie Generale d'Electricite. Apparatus for continuously welding optical elements without deformation. 3,517,159, 6-23-70, Cl. 219-121.

Milosevic, Romeo, to Tomos Motor Vehicles Factory. Gas control turning grip for motors with internal combustion. 3,522,745, 8-4-70, Cl. 74-489.

Milot, Michel; and Nicolas, Pierre J., 1/4 to World Wide Corporation Ltd. Sealing arrangement. 3,547,451, 12-15-70, Cl. 277-25.

Milprint, Inc.: *See—*
Furniss, William R.; and Weir, Richard J., 3,537,792.

Milton, Charles R. Container. 3,502,205, 3-24-70, Cl. 206-46.

Milton, Gerald E.; and Mullin, William F., to Mallory, P. R., & Co., Inc. Testing device for circuit breakers and electrical components associated therewith. 3,532,967, 10-6-70, Cl. 324-28.

Milton, Kirby M., to Eastman Kodak Company. Phosphate antifoggants for photographic emulsions. 3,544,336, 12-1-70, Cl. 96-109.

Milton, Kirby M.; and Goffe, Charles A., to Eastman Kodak Company. Lith-type emulsions containing a polyalkyleneoxy polymer and a 3-pyrazolidone developing agent. 3,518,085, 6-30-70, Cl. 96-66.3

Milton Manufacturing Co., Inc.: *See—*
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Milton, Robert M., to Union Carbide Corporation. Heat exchange system. 3,523,577, 8-11-70, Cl. 165-110.

Milton, Robert T.: *See—*
Warren, William T.; and Milton, Robert T.,3,490,056.

Milton, Roger, to Plysu Products Limited. Vented closure members. 3,549,040, 12-22-70, Cl. 220-44.

Milton, Roy, Company: *See—*
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Milton, William Frank; Brockenshaw, Harvey; and Shaw, John Leathley. Medical dressings. 3,491,753, 1-27-70, Cl. 128-156.

Milward, Vernon Charles, to Outboard Marine Corporation. Mechanism for snow vehicle. 3,504,752, 4-7-70, Cl. 180-5.

Milwaukee Chaplet & Mfg. Company, Inc.: *See—*
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Milwaukee Electric Tool Corporation: *See—*
Schnettler, Jerome L., 3,511,321.
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Milyakh, Alexandr Nikolaevich; Kubyshin, Boris Evgenievich; and Kartashov, Robert Petrovich, to Institut Elektrodinamiki An USSR. Electromagnetic frequency and phase converter of a multiphase source of supply. 3,543,133, 11-24-70, Cl. 321-7.

Milyakh, Alexandr Nikolaevich; Muzychenko, Alexandr Dmitrievich; and Shidlovsky, Anatoly Korneevich. Device for balancing a three-phase electrical network. 3,536,991, 10-27-70, Cl. 323-45.

Mima, Hiroyuki; and Hisada, Seizo, to Takeda Chemical Industries, Ltd. Method for preparing a stabilized enzyme composition. 3,515,642, 6-2-70, Cl. 195-63.

Mima, Hiroyuki; Noda, Etsunosuke; Matsuzaki, Toichiro; Yamada, Masayuki; and Nishida, Yoko, to Takeda Chemical Industries, Ltd. Griseofulvin-ethylene glycol monosalicylate compositions. 3,524,916, 8-18-70, Cl. 424-285.

Mimeur, Robert, to Carpano & Pons. S.A. Fishing reel. 3,497,155, 2-24-70, Cl. 242-84.54

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Mimino, Tohru; Kinoshita, Kazuhisa; Hattori, Keisuke; and Matsushita, Akiyoshi, to Nippon Kokan Kabushiki Kaisha. High-temperature alloy steel containing Cr and Mo. 3,539,338, 11-10-70, Cl. 75-126.

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Mims, Edward C. Flipper hat. 3,505,682, 4-14-70, Cl. 2-185.

Min, Sherman L., to United States of America, Navy. Impact responsive proximity initiator. 3,515,067, 6-2-70, Cl. 102-7.4

Min-I-Mix Corporation: *See—*
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Mina, Francis Alfred, to Hoffmann-La Roche Inc. Squeeze bottle dispenser. 3,488,002, 1-6-70, Cl. 239-327.

Mina, Ramses R.; and Pharis, William W., to Stromberg-Carlson Corporation. Cooperative linefinder arrangements for step-by-step telephone exchanges. 3,535,460, 10-20-70, Cl. 179-18.

Minagawa, Katsuji: *See—*
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Ikeda, Koichi; Minagawa, Katsuji; and Yamamoto, Noboru,3,533,965.

Minagawa, Motonobu; and Nakagawa, Kenichi, to Argus Chemical Corporation. Enhancement of resistance of olefin polymers to copper-catalyzed oxidative degradation. 3,549,572, 12-22-70, Cl. 260-23.

Minakami, Haruhiko: *See—*
Seki, Isao; Takagi, Hiromu; Kobayashi, Shinsaku; Iwai, Issei; and Minakami, Haruhiko,3,506,765.

Minakami, Shigeru: *See—*
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Minakuchi, Kazuo: *See—*
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Minami, Hisao: *See—*
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Minami, Muneyoshi; Maekawa, Haruki; Kubota, Takashi; Tsuda, Yoshizo; Kitamura, Kazuo; Tatsuno, Yoshitaka; Watanabe, Masamoto; and Kawabata, Yasuro, to Toyo Rayon Kabushiki Kaisha. Reaction products of tetracarboxylic acid dianhydrides with triamines and mixtures of triamines and diamines. 3,498,948, 3-3-70, Cl. 260-47.

Minami, Muneyoshi: *See—*
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Minami, Shinsaku: *See—*
Takamatsu, Hideji; Minami, Shinsaku; Fujita, Akio; Yamamoto, Tadatsugu; Fujimoto, Katsuro; Shimizu, Masanao; Takase, Yoshiyuki; and Nakanishi, Isao,3,510,479.

Minami, Shinsaku; Nakata, Minoru; Fujimoto, Katsuro; and Takase, Yoshiyuki, to Dainippon Pharmaceutical Co., Ltd.2-[2-(5-Nitro-2-furyl(vinyl]pyridine derivatives and process for preparation thereof. 3,518,256, 6-30-70, Cl. 260-240.

Minami, Shinsaku; and Shimizu, Masanao. Novel nitrofuran derivatives and process for their preparation. 3,518,257, 6-30-70, Cl. 260-240.

Minami, Shinsaku; Yamamoto, Tadatsugu; Shimizu, Masanao; and Takase, Yoshiyuki, to Dainippon Pharmaceutical Co., Ltd.6-Phosphonomethyl-2-[2-5-nitro-2-furyl)vinyl] pyridines and their alkali metal salts, and production thereof. 3,530,122, 9-22-70, Cl. 260-240.

Minamiyama, Kenichi: *See—*
Shiratori, Hajime; Shirogami, Tamotsu; Koezuka, Junji; and Minamiyama, Kenichi,3,536,534.

Minamiyama, Kozo: *See—*
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Minarcik, Gerald P., to Automatic Electric Laboratories, Inc. Digital control and memory block-of-access arrangement, particularly for a communication switching system. 3,533,080, 10-6-70, Cl. 340-172.5

Minarik, William L.: *See—*
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Minart, Paul; Blain, Claude; Platzer, Roger; and Gervraud, Jean-Claude, to Commissariat a l'Energie Atomique (C.E.A.), and Societe Grenobloise d'Etudes et d'Applications Hydrauliques (Sogreah). Installation for treating liquids and granular solids. 3,503,510, 3-31-70, Cl. 210-189.

Minasian, Angelina A. Label-receiving containers. 3,494,059, 2-10-70, Cl. 40-306.

Minasian, Harry B., to Ivanhoe Research Corporation. Method and apparatus for automatically centering fabric workpieces regardless of their size within the operating range. 3,548,196, 12-15-70, Cl. 250-224.

Minasy, Arthur Jim, to National Bank of North America, as trustee, mesne. Method and apparatus for article theft detection. 3,500,373, 3-10-70, Cl. 340-258.

Minasy, Arthur J., to Monere Corporation. Method and apparatus for detecting the unauthorized movement of articles. 3,493,955, 2-3-70, Cl. 340-258.

Minato, Tadaaki: *See—*
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Minato, Takashi; Matsumura, Yasuo; Kojima, Yukio; and Maruyama, Kunio, to Japan Exlan Company Limited. Lactonized acrylic polymers and production thereof. 3,515,706, 6-2-70, Cl. 260-85.5

Minato, Takashi; Matsumura, Yasuo; and Maruyama, Kunio, to Japan Exlan Company, Limited. Acrylic polymer composition containing thiocyanate salts or thiourea. 3,524,830, 8-18-70, Cl. 260-30.8

Minchenko, Hildegard M.: *See—*
McMaster, Robert G.; Libby, Charles C.; and Minchenko, Hildegard M.,3,546,498.

Minchokovich, Nicholas P., Sr. Hydraulic torque converter. 3,525,219, 8-25-70, Cl. 60-53.

Minck, Robert W., to Ford Motor Company. Secondary battery with alkali-sulfur electrodes and movable solid electrolyte. 3,514,332, 5-26-70, Cl. 136-6.

Mincuzzi, Antonio, to Soc. Per Azioni Fratelli Borletti. Electronic revolution counter with improved frame. 3,502,984, 3-24-70, Cl. 324-157.

Minczeles, Roger: *See—*
Van Gurp, Wilhelmus Adrianus; Agterbosch, Johannes; and Minczeles, Roger,3,548,086.

Mindell, Marvin: *See—*
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Minder, Clyde A.: *See—*
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Mindermann, Heinrich, to Gebruder Heller. Boring tool. 3,534,971, 10-20-70, Cl. 279-99.

Mindheim, Daniel J., to Time Systems Corporation. Digital apparatus and method for computing reciprocals and quotients. 3,525,039, 8-18-70, Cl. 324-78.

Mindick, Morris, to Nalco Chemical Company. Method for preparing a small particle size silica sol. 3,502,593, 3-24-70, Cl. 252-313.

Mindick, Morris; and Svarz, Jerry J., to Dow Chemical Company, The, mesne. Production of ion exchange resin particles. 3,549,562, 12-22-70, Cl. 260-2.1

Mindick, Morris; and Vossos, Peter H., to Nalco Chemical Company. Large particle silica sols and method of production. 3,538,015, 11-3-70, Cl. 252-313.

Mindler, Albert B.; and Tuwiner, Sidney B., to Hydronics Corporation. Electrolytic reduction of nitrate from solutions of alkali metal hydroxides. 3,542,657, 11-24-70, Cl. 204-98.

Mindler, Frederic A.: *See—*
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Mindt, Delton E. Adjustable rope brake. 3,524,229, 8-18-70, Cl. 24-132.

Mine, Karoku. Automatic switch for a point operated from a running carriage. 3,522,427, 8-4-70, Cl. 246-240.

Mine Safety Appliances Company: *See—*
Austin, Harry W., 3,500,474.
Bell, Donald E.; and Dauster, John F., 3,506,497.
Bossart, Clayton J., 3,500,616.
Bossart, Clayton J., 3,514,925.
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Mineda, Yoshinori: *See—*
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Minegishi, Susumu. Method and apparatus for melting glassy materials by a rotary kiln. 3,508,742, 4-28-70, Cl. 263-32.

Minegishi, Toyomasa. High speed water purifying apparatus. 3,517,814, 6-30-70, Cl. 210-197.

Minejima, Yukihiko; and Kiyasu, Zeniti, to Fujitsu Limited. Coding system. 3,488,762, 1-6-70, Cl. 340-347.

Minekawa, Saburo; Yamaguchi, Koretaka; Toyomoto, Kazuo; and Fujimoto, Einosuke, to Asahi Kasei Kogyo Kabushiki Kaisha. Compositions comprising a block copolymer, rubber and a process oil. 3,526,606, 9-1-70, Cl. 260-5.

Minekawa, Saburo; Yamaguchiki, Koretaka; Toyomoto, Kazuo; and Sakamoto, Kuniaki, to Asahi Kasei Kogyo Kabushiki Kaisha. Method for treating synthetic rubber. 3,542,721, 11-24-70, Cl. 260-33.6

Minekawa, Saburo: *See—*
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Minelli, Italo; and Ramseier, Paul. Turning head for cutting valve seats of internal-combustion engines. 3,522,758, 8-4-70, Cl. 90-12.5

Mineo, Salvatore C., to Hunt-Wesson Foods, Inc. Filtration apparatus and holder for filter. 3,497,071, 2-24-70, Cl. 210-474.

Miner, Carroll R., to General Instrument Corporation. Presettable television channel tuner using variable capacitor and variable capacitance diodes. 3,505,620, 4-7-70, Cl. 334-15.

Miner, Claire E., to United States of America, Atomic Energy Commission. Condensate purifier for diffusion pump. 3,536,420, 10-27-70, Cl. 417-77.

Miner Company, The: *See—*
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Miner Industries, Inc.: *See—*
Bloom, William, 3,536,906.
Green, Joseph, 3,497,221.

Miner, Irving O., to General Signal Corporation, The. Butterfly valve. 3,511,474, 5-12-70, Cl. 251-305.

Miner, Ora Lee, to Klassen, John. Storage and feeding rack or shelf for refrigerated beverage containers. 3,542,208, 11-24-70, Cl. 211-49.

Miner, Robert G., to Trane Company, The. Overcurrent protection system for polyphase dynamoelectric machines. 3,546,531, 12-8-70, Cl. 317-13.

Miner, W. H., Inc.: *See—*
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Hettlinger, Raymond C.; Madland, Rolf A.; and Carlson, Robert L., 3,534,661.

Miner, William W. Method of and apparatus for slitting sod pads. 3,495,487, 2-17-70, Cl. 83-117.

Miner, William W. Automatic sod harvester. 3,519,082, 7-7-70, Cl. 172-1.

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Minera Bayovar, S.A.: *See—*
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Mineraal Technologisch Instituut: *See—*
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Mingasson, Georges R. H.: *See—*
Sureau, Robert F. M.; Mingasson, Georges R. H.; Kremer, Gilbert V. H.; and Dupre, Victor M.,3,492,295.

Mini, Iti: *See—*
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Minich, Sam, to Bird Electronic Corporation. Nonreflecting coaxial line section. 3,506,935, 4-14-70, Cl. 333-34.

Minick, David G.; and Sinclair, David H., to Sinclair Company, The. Polymeric bearing for paper making machines. 3,549,223, 12-22-70, Cl. 308-200.

Minick, Richard C., to TRW Inc. Power reduction of liquid ring pumps. 3,518,028, 6-30-70, Cl. 417-69.

Minieri, Pasquale P. Fungicidal compositions and methods employing dialkyltin, 1,4-endoalkylene-2,3-dihydrophthages and -1,2,3,6-tetrahydrophthalates. 3,517,104, 6-23-70, Cl. 424-288.

Minieri, Pasquale P., to Tenneco Chemicals, Inc. Triorganotin(substituted phenoxides). 3,524,869, 8-18-70, Cl. 260-429.7

Minieri, Pasquale P., to Tenneco Chemicals, Inc. Organotin imides. 3,544,588, 12-1-70, Cl. 260-326.

Minieri, Pasquale P.; and DeGaetano, Joseph F., to Tenneco Chemicals, Inc.N,N'-(substituted benzylidene) alkylene diamines. 3,530,184, 9-22-70, Cl. 260-566.

Minieri, Pasquale P.; and Gottesman, Roy T., to Tenneco Chemicals, Inc. Soil fungicides and their use. 3,495,012, 2-10-70, Cl. 424-313.

Minigrip, Inc.: *See—*
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Staller, Karel J.; and Ausnit, Steven, 3,543,343.

Minijector Corporation: *See—*
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Minikes, Hans W.: *See—*
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Minikes, Hans W., to Eurograph Gesellschaft fur Photomechanik mbH. Photographic copying machine. 3,540,807, 11-17-70, Cl. 355-60.

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Minion, Aaron A.; and Schmidt, Paul R., to Minnesota Mining and Manufacturing Company. Sheet material package. 3,532,210, 10-6-70, Cl. 206-52.

Minisci, Francesco; and Galli, Remo, to Montecatini Edison S.p.A. Quaternary ammonium halides and process for the preparation thereof. 3,499,903, 3-10-70, Cl. 260-293.

Minister of Armed Forces, Ministerial Delegation for Weapons, Technical Direction of Land Weapons, Laboratory of Ballistic and Aerodynamic Researcher, French State, represented by the: *See—*
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Minister of National Defence, Her Majesty the Queen in Right of Canada as Represented by the: *See—*
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Minister of National Defense, in Her Majesty's Canadian Government:*See—*
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Ministerul Industriei Alimentare: *See—*
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Ministerul Industriei Chimice: *See—*
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Ministerul Industriei Constructiilor de Masini: *See—*
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Ghile, Aurel, 3,509,396.
Hoppe, Egon; and Cretescu, Alex Armand, 3,505,582.
Landau, Ioan D.; and Gavat, Stefan, 3,500,158.
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Ministerul Petrolului: *See—*
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Ministerul Transporturilor Auto Navale Si Aeriene: *See—*
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Ministry of Defence: *See—*
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Ministry of Trade and Industry, The State of Israel: *See—*
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Minitowoc Company, Inc., The: *See—*
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Minix, William A., to Freeland Gauge Company. Air gauge cartridge. 3,538,609, 11-10-70, Cl. 33-172.

Mink, James W., to United States of America, Army. Optical frequency discriminator with dual frequency resonator. 3,549,236, 12-22-70, Cl. 350-157.

Mink, Samuel J., II: *See—*
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Mink, William H., to Scientific Advances, Inc. Light and photocell unit for sorting apparatus. 3,536,927, 10-27-70, Cl. 250-220.

Mink-Dayton, Inc.: *See—*
Materese, Vincent, 3,541,808.

Minka, Edward T.: *See—*
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Minkenberg, Willi, to Schiess Aktiengesellschaft. Device for arresting the turning table or the like of machine tools. 3,541,890, 11-24-70, Cl. 74-816.

Minklei, Alfred O., to Hooker Chemical Corporation. Process for metal coating substrate pretreated with alkali metal sulfide and resultant product. 3,523,875, 8-11-70, Cl. 204-38.

Minkowitz, Sheldon, to Perkin-Elmer Corporation, The. Apparatus for sensing the centroid of an impinging laser light beam. 3,535,525, 10-20-70, Cl. 250-208.

Minks, Floyd M., to Brunswick Corporation, mesne. Pulse forming circuit and capacitor discharge ignition systems therewith. 3,502,955, 3-24-70, Cl. 320-1.

Minks, Floyd M., to Brunswick Corporation. Speed limiting ignition system. 3,534,719, 10-20-70, Cl. 123-102.

Minks, Floyd M., to Brunswick Corporation. Gated transistor blocking oscillator without feedback winding. 3,535,652, 10-20-70, Cl. 331-112.

Minks, Floyd M., to Brunswick Corporation, mesne. Alternator driven capacitor discharge ignition system. 3,542,007, 11-24-70, Cl. 123-148.

Minks, Floyd M., to Brunswick Corporation. Speed indicating apparatus for an internal combustion engine having an electronic ignition system. 3,543,109, 11-24-70, Cl. 324-70.

Minks, Floyd M., to Brunswick Corporation, mesne. Triggered supply for arc gap unit. 3,549,944, 12-22-70, Cl. 315-209.

Minnaja, Nicola: *See—*
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Minneapolis Rubber Company: *See—*
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Minnesota Automotive, Inc.: *See—*
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Minnesota Mining and Manufacturing Company: *See—*
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Mistarz, Robert J., to Chicago Stainless Equipment. Power driven vehicle arranged for hand propelling. 3,527,314, 9-8-70, Cl. 180-19.

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Miyamoto, Haruo; Uchida, Hideo; Uzawa, Katsuhiko; and Ohbayashi, Tsutomu, to Mitsubishi Rayon Co., Ltd. Process for bonding polypropylene materials with rubbers. 3,515,616, 6-2-70, Cl. 156-330.

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Miyasaka, Tetzuo. Suspenders. 3,508,303, 4-28-70, Cl. 24-73.

Miyashita, Takao; Igawa, Tatsuo; and Maeda, Yo, to Hitachi Chemical Company Ltd., and Hitachi, Ltd. Method of treating plastic film for electric insulation. 3,524,768, 8-18-70, Cl. 134-1.

Miyata, Akira; Tomita, Chikayoshi; Suzuki, Akio; Okubo, Hideyo; and Nagakuni, Masahiko, to Nippon Kokan Kabushiki Kaisha. Process for the preliminary treatment adapted for the electrolytic formation of aluminum coatings on metallic surfaces in molten salt bath. 3,532,609, 10-6-70, Cl. 204-38.

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Miyazaki, Nagao, to Japan Electronics Industry, Limited. Electric lock or electric door opener. 3,521,921, 7-28-70, Cl. 292-201.

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Mizell, Louis R., to Gillette Company, The. Method and apparatus for coiffure control. 3,519,003, 7-7-70, Cl. 132-7.

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Mizelle, Adrian C.; and Gillespie, Robert D., to Brown and Williamson Tobacco Corporation. Bundling machine. 3,507,089, 4-21-70, Cl. 53-61.

Mizelle, Adrian C.; and Gillespie, Robert D., to Brown and Williamson Tobacco Corporation. Overwrapping machine. 3,507,091, 4-21-70, Cl. 53-131.

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Mizrahi, Albert, to Bell Telephone Laboratories, Incorporated. High impedance, self-zeroing, DC voltmeter circuit. 3,509,460, 4-28-70, Cl. 324-111.

Mizrahi, Jacques, to Societe d'Appareillage Auxiliaire pour l'Electricite. Reinforcing iron. 3,545,158, 12-8-70, Cl. 52-726.

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Mizuk, John, to Aluminum Company of America. Pie pan. 3,516,573, 6-23-70, Cl. 220-72.

Mizukoshi, Hiroshi. Photoelectric detecting device for weft in shuttle under operation. 3,526,776, 9-1-70, Cl. 250-222.

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Mizuno, Hideo, to Matsushita Electronics Corporation. Calcium Halophosphate phosphors. 3,541,020, 11-17-70, Cl. 252-301.4

Mizuno, Hideo, to Matsushita Electronics Corporation. Cerium and terbium activated alkaline earth halophosphate phosphor. 3,541,021, 11-17-70, Cl. 252-301.4

Mizuno, Hideo; Akutsu, Hidezo; Moriguchi, Eiziro; Yamashita, Katsuyuki; Kamiya, Shigeru; and Iwata, Koshi, to Matsushita Electronics Corporation. Discharge tube. 3,513,349, 5-19-70, Cl. 313-311.

Mizuno, Hiroshi, to Pioneer Electronic Corporation. Automatic answering and recording apparatus having remote control device for absence telephone. 3,511,934, 5-12-70, Cl. 179-6.

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Mizuno, Komei; Sugita, Norio; Asai, Mitsuko; and Miyake, Akira, to Takeda Chemical Industries, Ltd.Chromomycin A_3 derivatives and production thereof. 3,501,570, 3-17-70, Cl. 424-119.

Mizuno, Shizuo; Ando, Masao; and Wasida, Michio, to Sumitomo Light Metal Industries, Ltd. Method and apparatus for controlling the contours of rolling mill rolls to obtain metal sheet or strip of superior flatness. 3,496,744, 2-24-70, Cl. 72-12.

Mizuno, Tadashi, to Kabushiki Kaisha Tokai Rika Denki Seisakusho. Device for locking a steering axle in automobiles. 3,529,453, 9-22-70, Cl. 70-252.

Mizunuma, Yoshiyuki: *See—*
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Mizusawa Kagaku Kogyo Kabushiki Kaisha: *See—*
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Mizusawa, Motoo: *See—*
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Mizuta, Koji: *See—*
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Mizuta, Yukio; Ano, Shizuya; Inoue, Kazuo; and Oda, Hiromoto. Card reading system. 3,496,341, 2-17-70, Cl. 235-61.11

Mizuta, Yukio; Ano, Shizuya; Tanaka, Toshio; and Asada, Takeo, to Omron Tateisi Electronics Co. Automatic ticket gate. 3,531,625, 9-29-70, Cl. 235-61.7

Mizutani, Kunio; Ito, Takaaki; and Ono, Kenyu, to Mitsubishi Petrochemical Co., Ltd. Foamable molding composition. 3,520,834, 721-70, Cl. 260-2.5

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Mizzau, Carlo. Automatic distributor. 3,508,791, 4-28-70, Cl. 302-28.

Mizzoni, Renat Herbert, to Ciba Corporation. N, N'-diaminoalkoxybenzyl-diamino-alkanes and the salts thereof. 3,551,492, 12-29-70, Cl. 260-570.7

Mizzoni, Renat Herbert; and De Stevens, George, to Ciba Corporation. Cyclopropylmethoxy-3-quinoline carboxylic acids and esters. 3,496,184, 2-17-70, Cl. 260-287.

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Mlavsky, Abraham I.; and Griffiths, Leonard B., to Tyco Laboratories, Inc. Light emitting silicon carbide semiconductor junction devices. 3,517,281, 6-23-70, Cl. 317-237.

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Mlot-Fijalkowski, Adolf, to Magnaflux Corporation. Aqueous base penetrant composition and method. 3,543,570, 12-1-70, Cl. 73-104.

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Mo, Ivar; Abrahamsen, Per R.; and Meisingset, Kaare Ragnar, to International Standard Electric Corporation. Key material generator. 3,506,783, 4-14-70, Cl. 178-22.

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Moan, Richard D., to Ford Motor Company. Fluid pressure governor mechanism having a governor valve orifice and a constant flow governor feed circuit. 3,542,046, 11-24-70, Cl. 137-54.

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Model, Ernst; and Gatzi, Karl, to Geigy Chemical Corporation. 2-Hydroxy-4-halo-diphenyl sulfones. 3,551,500, 12-29-70, Cl. 260-607.
Modeme, Robert, to Compagnie d'Etudes de Recherches Electroniques du Connexes CEREC. Fastener for tubes or like objects. 3,513,508, 5-26-70, Cl. 24-16.
Moden, James R., to AMH Corporation. Reinforced buttonhole. 3,500,509, 3-17-70, Cl. 24-202.
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Modersohn, Charles W.; Burnham, Lewis A.; Melter, Joseph; and Crain, John D., to Beloit Corporation. Pulp molding machine. 3,503,847, 3-31-70, Cl. 162-392.
Modesti, James N. Disk flying craft. 3,503,573, 3-31-70, Cl. 244-12.
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Modiano, Victor J., to Hughes Aircraft Company. Power supply energy transformation apparatus. 3,490,028, 1-13-70, Cl. 321-2.
Modiano, Victor J., to United States of America, Air Force. Phase sensitive detector. 3,537,018, 10-27-70, Cl. 328-133.
Modic, Frank J., to General Electric Company. Process for preparing 1,3,5,7-tetramethyl-1,3,5,7- tetrahydrocyclotetrasiloxane. 3,504,006, 3-31-70, Cl. 260-448.2
Modic, Frank J., to General Electric Company. Platinum catalyst composition for hydrosilation reactions. 3,516,946, 6-23-70, Cl. 252-429.
Modic, Frank J., to General Electric Company. Silicone pressure-sensitive adhesive of improved strength. 3,528,940, 9-15-70, Cl. 260-37.
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McCully, C. Roland, 3,523,829.
Modrey, Henry J. Key ring. 3,516,272, 6-23-70, Cl. 70-459.
Modrey, Henry J. Bearing assembly. 3,530,819, 9-29-70, Cl. 114-144.
Modrey, Henry J. Sea valve grid cover. 3,540,404, 11-17-70, Cl 114-229.
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Moeditzer, Kurt, to Monsanto Company. Polymeric germanosiloxanes. 3,510,502, 5-5-70, Cl. 260-429.
Moedritzer, Kurt, to Monsanto Company. Polymeric germanosilthianes. 3,511,862, 5-12-70, Cl. 260-429.
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Moffett, Robert Bruce, to Upjohn Company, The. 2-Phenyl-3-(3-quinuclidinylamino)-propiophenones. 3,542,791, 11-24-70, Cl. 260-294.7
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Morehouse, Edward L., to Union Carbide Corporation. Stable emulsions of incompatible polyols containing ethylene oxide-propylene oxide block copolymers as emulsifiers. 3,489,698, 1-13-70, Cl. 260-9.

Morehouse, Edward L., to Union Carbide Corporation. Siloxane-oxyalkylene copolymer foam stabilizers. 3,505,377, 4-7-70, Cl. 260-448.2

Morehouse, Edward L., to Union Carbide Corporation. Silicone sulfates. 3,513,183, 5-19-70, Cl. 260-448.2

Morehouse, Edward L., to Union Carbide Corporation. Siloxane ether sulfonates. 3,531,417, 9-29-70, Cl. 252-312.

Morehouse, Edward L., to Union Carbide Corporation. Novel organosilicon compounds. 3,531,507, 9-29-70, Cl. 260-448.2

Morehouse, Patricia A., to Gossard, H. W., Co., The. Girdle. 3,523,540, 8-11-70, Cl. 128-539.

Morehouse, Russel A. Two player operated game with common target. 3,542,367, 11-24-70, Cl. 273-122.

Moreines, Harold: *See—*
James, Robert L.; and Moreines, Harold,3,495,078.
James, Robert Ludlow; and Moreines, Harold,3,501,758.

Moreira, Miguel G.: *See—*
de Moya, Jose J.; and Moreira, Miguel G.,3,528,589.

Morel, Charles J.: *See—*
Arnold, Winfried; and Morel, Charles J.,3,510,559.
Arnold, Winfried; and Morel, Charles J.,3,511,877.
Baschang, Gerhard; and Morel, Charles,3,524,002.

Morel, Charles, to Geigy Chemical Corporation. D-glucofurano imidazolines. 3,502,650, 3-24-70, Cl. 260-211.5

Morel, Charles, to Geigy Chemical Corporation. D-glucofurano amidazoline anti- inflammatory agents. 3,546,333, 12-8-70, Cl. 424-80.

Morel, Jean Marcel Ernest; and Hubert, Michel Jean Robert, to Societe dite: Verreries Mecaniques Champenoises. Silk screen printing machine for decorating conical articles. 3,521,298, 7-21-70, Cl. 101-40.

Morel, Jean Marius Ernest: *See—*
Guinet, Paul Alfred Eugene; and Morel, Jean Marius Ernest,3,530,159.

Morel, Jean; Durand-Texte, Gerard; Frohling, Josef; and Dittmann, Heinz, to Frohling, Josef, d/b/a Frohling, Josef, Firma. Milling machines. 3,538,812, 11-10-70, Cl. 90-16.

Moreland, Billy Ray: *See—*
Seale, Virgil L.; Moreland, Billy Ray; and Derwin, James,3,511,882.

Moreland, Colby D., to White Consolidated Industries, Inc. Heater control. 3,489,345, 1-13-70, Cl. 236-9.

Moreland, Stephen T., to Scherer, R. P., Corporation. Plastic ampoule for use with hypodermic injector. 3,540,444, 11-17-70, Cl. 128-173.

Moreland, William C., II; and Learn, Leland L., to Westinghouse Electric Corporation. Water pumping and control system. 3,495,612, 2-17-70, Cl. 137-209.

Morell, Bryan: *See—*
Clarke, Michael E.; and Morell, Bryan,3,538,815.

Morelli, Dino A., to California Institute Research Foundation. Guillotine-type paper cutter. 3,501,988, 3-24-70, Cl. 83-171.

Morelli, Dominick J.; and Morelli, Frank, to Maschinenfabrik-Augsburg-Nurnberg A.G. Coaches batting aid. 3,489,411, 1-13-70, Cl. 273-26.

Morelli, Frank: *See—*
Morelli, Dominick J.; and Morelli, Frank,3,489,411.

Morello, Edwin F., to Standard Oil Company (Indiana). Process for producing polytrimellitimides using phenol solvents and alkylene oxides as hydrogen halide scavengers. 3,494,890, 2-10-70, Cl. 260-47.

Moren, Rolf Erhard, to Mo och Domsjo Aktiebolag. Dimensionally stabilized wood and method of making such wood. 3,547,679, 12-15-70, Cl. 117-57.

Moren, Rolf Erhard; and Sundin, Birger, to Stockholms Superfosfat Fabriks Aktiebolag. Composition for treatment of wood products comprising a polyol compound, a polymerizable amine formaldehyde resin and a curing catalyst. 3,493,417, 2-3-70, Cl. 117-65.2

Morena, Carmen G. Motor vehicle auxiliary signalling system. 3,493,926, 2-3-70, Cl. 340-76.

Moreno, Rogelio: *See—*
Palermo, Santo; and Moreno, Rogelio,3,513,487.

Morenz, James E.: *See—*
Beauchamp, Edwin K.; and Morenz, James E.,3,546,026.

Moresi, Franco, to Paillard S.A. Miniature electric motor. 3,514,654, 5-26-70, Cl. 310-266.

Moret, Michel A., to Etablissements Sophindar. Apparatus for body care. 3,536,065, 10-27-70, Cl. 128-50.

Moret, Michel A.; and Rosset, Claude R., to Etablissements AESUP. Electric dry shaver with cutting head movable to shaving and cleaning positions and removable. 3,501,835, 3-24-70, Cl. 30-43.92

Moret, Michel A.; and Rosset, Claude R., to Etablissements AESUP. Electric dry shaver with an elongated member pivoted to the inner cutter and spring biased against the cutter and the driving member coupled thereto. 3,501,836, 3-24-70, Cl. 30-43.92

Moret, Michel A.; and Rosset, Claude R., to Etablissements AESUP. Electric dry shaver with sloping lap joint connecting front and rear casing sections. 3,502,915, 3-24-70, Cl. 310-47.

Moret, Michel A.; and Rosset, Claude R., to Etablissements AESUP. Control device for electrical body care. 3,541,485, 11-17-70, Cl. 335-205.

Moreton, Albert J.: *See—*
Petrie, James A.; Keen, John M. S.; May, Gordon C.; Moreton, Albert J.; and Littleford, Frank,3,524,712.

Moreton, Roger: *See—*
Johnson, William; Lloyd, Thomas; McMullen, Patrick; Moreton, Roger; and Watt, William,3,541,582.
Johnson, William; Moreton, Roger; and Watt, William,3,532,466.

Moretti, Alberto: *See—*
Lo Monaco, Sergio; Mazzolini, Corrado; Patron, Luigi; and Moretti, Alberto,3,520,867.

Morey, Charles V., to Consolidated Edison Company of New York, Inc. Frequency-responsive control apparatus in electric power supply systems. 3,519,883, 7-7-70, Cl. 317-26.

Morey, Everett D., to General Electric Company. Labyrinth seal tub cover. 3,509,741, 5-5-70, Cl. 68-27.

Morey, Glen H.; and Rickert, Raymond E., to Templeton Coal Company. Electric heating mantle with a seal arrangement for vessel. 3,543,004, 11-24-70, Cl. 219-433.

Morey, Thomas H.; Pope, Karl D., III; and Tierney, Robert R. Mounting structure for removable surfboard fin. 3,516,099, 6-23-70, Cl. 9-310.

Morey, Woodruff A., to Whiting Corporation. Overhead crane and article handling storage system. 3,494,488, 2-10-70, Cl. 214-16.4

Morez, Gene S., to Warwick Electronics, Inc. Electronic organ with musical notes comprising beat frequencies of a reference generator and note generators utilizing magnetostrictive oscillators. 3,510,565, 5-5-70, Cl. 84-1.06

Morf, Ernest. Method of and apparatus for checking the tightness of a watchcase. 3,517,547, 6-30-70, Cl. 73-45.5

Morfax Limited: *See—*
Moss, Brian Yoxall, 3,515,963.
Moss, Brian Yoxall, 3,518,514.

Morfeldt, Carl-Olof Oskar, 1/2 to Sandvikens Jernverks Aktiebolag, and 1/2 to Atlas Copco Aktiebolaget. Tie rod anchoring method and apparatus. 3,507,121, 4-21-70, Cl. 61-39.

Morgan Adhesive Company: *See—*
Miller, James A., 3,519,585.

Morgan, Agnes T.: *See—*
Morgan, Raymond E.,3,541,358.

Morgan, Albert R., Jr.: *See—*
Berkowitz, Sidney; and Morgan, Albert R., Jr.,3,496,243.
Berkowitz, Sidney; and Morgan, Albert R., Jr.,3,496,244.

Morgan, Albert W.: *See—*
Fisch, Richard S.; and Morgan, Albert W.,3,527,605.

Morgan, Arthur A.: *See—*
Krueger, Harvey R.; and Morgan, Arthur A.,3,527,172.

Morgan, Arthur I., Jr.: *See—*
Kumar, Romesh; King, Cary Judson, III; and Morgan, Arthur I., Jr.,3,541,805.

Morgan, Bill T.: *See—*
Wilson, Newton R.; and Morgan, Bill T.,3,544,021.

Morgan, Burton D. Honeycomb core made from sealed continuous thermoplastic sheets. 3,547,751, 12-15-70, Cl. 161-68.

Morgan, Carl W. Lid covered container. 3,516,570, 6-23-70, Cl. 220-42.

Morgan, Charles R., to Grace, W. R., & Co. Preparation of methylenebisiminodiacetonitrile. 3,532,735, 10-6-70, Cl. 260-465.5

Morgan, Charles R.; and Godfrey, John J., to Grace, W. R., & Co. Adiabatic process for preparing aminonitriles using heat recycle. 3,515,742, 6-2-70, Cl. 260-465.5

Morgan, Coleman P., to Bendix Corporation, The. Vulcanizater of compositions comprising a fluorine- containing copolymer and silicone gum. 3,538,028, 11-3-70, Cl. 260-23.

Morgan Company: *See—*
Meuret, Henry C., 3,512,304.

Morgan Construction Company: *See—*
Hill, William J., 3,494,603.
Kinnicutt, Roger, Jr., 3,550,477.
McNaugher, John R., 3,526,113.
Murrah, Edmund S., 3,497,084.
Pratt, Edgar Harry, 3,516,139.
Rickley, Samuel S., 3,545,774.

Morgan, Curtis L., to Fedders Corporation. Self-cleaning cooking apparatus. 3,545,423, 12-8-70, Cl. 126-19.

Morgan, D. H., (Engineers) Limited: *See—*
Morgan, David Hippisley, 3,532,362.

Morgan, David: *See—*
Lee, Bert, 3,498,278.

Morgan, David F., to Char-Lynn Company. Extendible steering column. 3,491,663, 1-27-70, Cl. 74-493.

Morgan, David Hippisley, to Morgan, D. H., (Engineers) Limited. Articulated vehicles. 3,532,362, 10-6-70, Cl. 280-425.

Morgan, David Luke, to Seymour-Sheridan, Inc. Method and apparatus for forming sealed articles. 3,538,670, 11-10-70, Cl. 53-22.

Morgan, David W.: *See—*
Hares, George B.; Morgan, David W.; and Storey, Clyde H.,3,495,964.

Morgan, Dean T., to Thermo Electron Corporation. Instantaneous hot water heater and hot air supply. 3,536,048, 10-27-70, Cl. 122-33.

Morgan, Dee Rich; Andersen, Delmar Lloyd; and Mook, Donald E., to Borden, Inc. Preparation of acidified milk products. 3,539,363, 11-10-70, Cl. 99-212.

Morgan, Dennis J., to Bell Telephone Laboratories, Incorporated. Two-out-of-five coded decimal counter. 3,532,860, 10-6-70, Cl. 235-92.

Morgan, Dennis J.; Nielson, Carl C.; and Whitemyer, James G., to Bell Telephone Laboratories, Incorporated. Switching system with station controlled class of service. 3,542,962, 11-24-70, Cl. 179-18.

Morgan, Derek H.: *See—*
Augstein, Joachim; Austin, William C.; Monro, Alastair M.; and Morgan, Derek H.,3,519,620.

Morgan, Donald G. System for dehydrating food or the like. 3,498,209, 3-3-70, Cl. 99-246.

Morgan Engineering: *See—*
Auzins, Raimunds, 3,536,204.

Morgan, Eric R.: *See—*
Brotzmann, Karl; and Morgan, Eric R.,3,512,957.

Morgan, Everett L.; and Gillingwater, Alfred G., to Foamcor, Inc. Connector structure for modular panels and the like. 3,512,819, 5-19-70, Cl. 287-189.36

Morgan, Frank S. Shock absorbers. 3,548,977, 12-22-70, Cl. 188-88.

Morgan, George C. Device for applying lines to a pavement. 3,539,080, 11-10-70, Cl. 222-177.

Morgan, George W.: *See—*
Dailey, William J.; and Morgan, George W.,3,530,469.
Greenberg, Harry S.; and Morgan, George W.,3,496,687.

Morgan, George W., to North American Rockwell Corporation. Marine riser structure. 3,496,898, 2-24-70, Cl. 114-0.5

Morgan, George W., to North American Rockwell Corporation. Flexible underwater riser containing electrical conductors and material conduits. 3,517,110, 6-23-70, Cl. 174-47.

Morgan, George W., to North American Rockwell Corporation. Multi-conduit underwater line. 3,526,086, 9-1-70, Cl. 57-149.

Morgan, Gerard E., to Riddell, Inc. Shoulder pad construction. 3,509,579, 5-5-70, Cl. 2-2.

Morgan, Harold: *See—*
Eggleston, William S., 3,518,849.

Morgan, Herbert S.; and Weiss, James O., to Monsanto Company. Neutralization of polymerization solutions of aromatic polyamides. 3,498,955, 3-3-70, Cl. 260-78.

Morgan, Howard, to Skagit Corporation. Straplift loading system. 3,493,259, 2-3-70, Cl. 294-74.

Morgan, Ira L.; and Hall, James D., to Texas Nuclear Corporation. Method and apparatus for radioactivity analysis. 3,493,750, 2-3-70, Cl. 250-71.5

Morgan, Jefferson D.: *See—*
Lee, Bert, 3,497,994.
Lee, Bert, 3,498,278.

Morgan, Jesse P.; and Moon, William T., Jr., to Robertshaw Controls Company. Fluidic indicator and system therefor. 3,532,069, 10-6-70, Cl. 116-70.

Morgan, John D., to Mornick Instrument Company. Light pulse meter. 3,495,916, 2-17-70, Cl. 356-215.

Morgan, John Henry: *See—*
Loukes, David Gordon; and Morgan, John Henry,3,549,343.

Morgan, John W.: *See—*
Jepson, Ivar; Morgan, John W.; and Richmond, James W.,3,496,718.
Jepson, Ivar; Morgan, John W.; and Richmond, James W.,3,498,046.
Jepson, Ivar; Morgan, John W.; and Richmond, James W.,3,498,048.

Morgan, Paul E., to Wiley, Bruce. Oscillating piston internal combustion engine. 3,516,392, 6-23-70, Cl. 123-43.

Morgan, Paul Winthrop, to Du Pont de Nemours, E. I., and Company. Soluble, high-melting, thermally-stable linear polyesters. 3,546,165, 12-8-70, Cl. 260-47.

Morgan, Peter Ernest: *See—*
Evans, Lee Stanley; and Morgan, Peter Ernest,3,550,247.

Morgan, R. A., Co., Inc.: *See—*
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Morgan, Robert A., 3,529,789.

Morgan, R. John; and Shilling, Robert Nelson, Jr., to Scintillonics, Inc. Motor speed control. 3,546,555, 12-8-70, Cl. 318-341.

Morgan, Raymond E., deceased0 (by Morgan, Agnes T.; administratrix), to General Electric Company. Solid state power circuits. 3,541,358, 11-17-70, Cl. 307-305.

Morgan, Richard E., to Electronic Data Systems Corporation. Sequencer and selector for automatic voice tone transmission. 3,515,814, 6-2-70, Cl. 179-84.

Morgan, Richard O.: *See—*
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Morgan, Robert A., to Morgan, R. A., Co., Inc. Reversible drive means. 3,529,789, 9-22-70, Cl. 242-201.

Morgan, Robert L.: *See—*
Martignoni, Pasquale; Morgan, Robert L.; Mc Clune, Lee F.; Nappier, Henry A.; and Cason, Charles M., III,3,493,742.

Morgan, Rose M.: *See—*
Good, Dorothy I.; and Morgan, Rose M.,3,488,156.

Morgan, William R., Jr. Resilient leveling means for floors. 3,511,001, 5-12-70, Cl. 52-126.

Morgan, William R.: *See—*
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Morgan, Zeulon V.: *See—*
Hagy, Robert W.; Morgan, Zeulon V.; and Northcraft, Robert L.,3,518,207.

Morgand, Pierre; and Riou, Yves. C.I.T. -Compagnie Industrielle des Telecommunications Automatic telephone system with bi-directional connection stage. 3,534,173, 10-13-70, Cl. 179-18.

Morganite Carbon Limited: *See—*
Sen, Timir Kumar, 3,521,102.

Morganite Crucible Limited: *See—*
Aldred, Francis Henry; and Savage, John, 3,520,526.

Morgans, David J.; Bavitz, Joseph F.; and Castello, Robert A., to Merck & Co., Inc. Tablets of magnesium probenecid tetrahydrate. 3,524,917, 8-18-70, Cl. 424-317.

Morganson Peter H., to Stanley Works, The. Portable electrical tool having permanent magnet field. 3,519,858, 7-7-70, Cl. 310-47.

Morganson, Peter H.: *See—*
Bush, Walter R.; Davis, William R.; and Morganson, Peter H.,3,504,716.

Morgen Manufacturing Co.: *See—*
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Morgenlander, Oskar: *See—*
Reinartz, Robert; Fischer, Hermann; and Morgenlander, Oskar,3,497,208.

Morgenroth, Henri. Method of supporting number tabs on helical spring. 3,530,820, 9-29-70, Cl. 116-129.

Morgenson, Edgar O.; and Lacher, William A., to Burroughs Corporation. Audible multiswitch transition detector. 3,524,179, 8-11-70, Cl. 340-253.

Morgenstern, Manfred: *See—*
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Morgenthaler, Frederic R., to Massachusetts Institute of Technology. Method of and apparatus for changing frequency power and/or delay time of wave energy. 3,530,302, 9-22-70, Cl. 307-88.3

Mori, Akihisa: *See—*
Kikukawa, Ryosuke; Hamatani, Fumiya; Kuwabara, Masayoshi; and Mori, Akihisa,3,508,744.

Mori, Akira: *See—*
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Mori Denki Manufacturing Co., Ltd.: *See—*
Mori, Shinjiro, 3,521,701.

Mori, Eiji; Ide, Masao; and Kaneko, Seiji. Method for welding plastic members. 3,518,136, 6-30-70, Cl. 156-73.

Mori, Gennosuke; and Mori, Takako. Method of applying a water-proofing sheet to a structural surface. 3,522,119, 7-28-70, Cl. 156-71.

Mori, Hideo. Bearing. 3,503,660, 3-31-70, Cl. 308-121.

Mori, Hideo: *See—*
Owada, Atsushi; Shibata, Shinichi; and Mori, Hideo,3,512,054.

Mori, Horoyuki, to Nippon Electronics Co., Ltd. Speed controlling apparatus for small D.C. motor. 3,512,068, 5-12-70, Cl. 318-331.

Mori, Ikuo, to Nippon Kogaku K.K. Retrofocus type wide angle objective lens. 3,507,559, 4-21-70, Cl. 350-214.

Mori, Ikuo, to Nippon Kogaku K.K. Symmetrical relay lens of equi-magnification. 3,524,699, 8-18-70, Cl. 350-210.

Mori, Ikuo, to Nippon Kogaku K.K. Extremely wide-angle object lens. 3,549,241, 12-22-70, Cl. 350-176.

Mori, Katsuhiko: *See—*
Kawase, Susumu; and Mori, Katsuhiko,3,529,087.

Mori, Katsuji. Scissors for trimming hair of the nostrils. 3,546,777, 12-15-70, Cl. 30-29.5

Mori, Kenichi: *See—*
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Mori, Leo: *See—*
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Mori, Leo; Nikkura, Isamu; Ishida, Tsuyoshi; Arita, Hiroshi; and Tamura, Hiroshi, to Tokyo Shibaura Electric Co., Ltd. Automatic identifying apparatus of postage stamp indications. 3,488,511, 1-6-70, Cl. 250-226.

Mori, Mitsutoshi: *See—*
Tomota, Miyaji; Mori, Mitsutoshi; Tokunaga, Kenichi; Etoh, Eisuke; and Abe, Eisuke,3,518,696.

Mori, Shinjiro, to Mori Denki Manufacturing Co., Ltd. Radiator unit for industrial safety illuminating apparatus. 3,521,701, 7-28-70, Cl. 165-47.

Mori, Shunji: *See—*
Ogi, Hideo; Ozaki, Haruo; Mishiro, Masaru; Horikawa, Yoshikazu; and Mori, Shunji,3,548,845.

Mori, Takaaki: *See—*
Tokuyama, Takashi; Nishimatsu, Shigeru; Uehara, Keijiro; and Mori, Takaaki,3,551,760.

Mori, Takako: *See—*
Mori, Gennosuke; and Mori, Takako,3,522,119.

Mori, Tetsuo; Takada, Takashi; Okahashi, Keiji; and Matsumura, Sueyoshi, to Matsushita Denko Kabushiki Kaisha. Reed relay. 3,522,564, 8-4-70, Cl. 335-153.

Mori, Toshiyuki, to Olympus Optical Co., Inc. Flexible light transmitting instrument and flexible tube for said instrument. 3,525,331, 8-25-70, Cl. 128-6.

Mori, Toshiyuki; and Matsuo, Kazumasa, to Olympus Optical Co., Ltd. Automatic exposure control device of an endoscopic camera. 3,548,726, 12-22-70, Cl. 95-10.

Mori, Yoichi, to Nissan Jidosha Kabushiki Kaisha. Hydraulically controlled automatic speed change device. 3,494,223, 2-10-70, Cl. 74-688.

Mori, Yoichi; Marumo, Nagayuki; Fukazawa, Noburu; and Ohie, Koichi, to Nissan Jidosha Kabushiki Kaisha. Automatic speed change device for vehicles. 3,489,037, 1-13-70, Cl. 74-695.

Mori, Yoichi; Nagayuki, Marumo; Noburu, Fukazawa; and Koichi, Ohio, to Nissan Jidosha Kabushiki Kaisha. Automatic speed change device for vehicles. 3,513,722, 5-26-70, Cl. 74-695.

Mori, Yoshio, to Nippon Piston Ring Co., Ltd. Cylinder or cylinder liner and method for producing the same. 3,530,772, 9-29-70, Cl. 92-168.

Mori, Yoshio, to Nippon Piston Ring Co., Ltd. Valve lifter with thin plastic coating. 3,545,415, 12-8-70, Cl. 123-90.

Mori, Yuji: *See—*
Sumiyoshi, Masaharu; Fukuma, Nobuo; Mori, Yuji; and Okui, Kunio,3,495,421.

Moriarty, John M.: *See—*
O'Donnell, Miles C.; Johnson, Robert B.; Moriarty, John M.; and Wollschleger, Frank D.,3,520,596.

Moriarty, Maurice J. Rotary engine. 3,549,286, 12-22-70, Cl. 418-85.

Morico, John L., to Enthone, Incorporated. Process for the destruction of cyanide in waste solutions. 3,505,217, 4-7-70, Cl. 210-59.

Moriconi, Joseph H.: *See—*
Jacknow, Burton B.; and Moriconi, Joseph H.,3,526,533.

Moriguchi, Eiziro: *See—*
Mizuno, Hideo; Akutsu, Hidezo; Moriguchi, Eiziro; Yamashita, Katsuyuki; Kamiya, Shigeru; and Iwata, Koshi,3,513,349.

Morikawa, Harumi: *See—*
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Morikawa, Tetsuya: *See—*
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Morikawa, Yonekichi, to Daiwa Can Co. Ltd. Apparatus and method for separating segments of an orange. 3,543,822, 12-1-70, Cl. 146-3.

Morikawa, Yonekichi; and Takano, Kunro, to Daiwa Can Co., Ltd. Prepared citrus fruit processing apparatus. 3,515,188, 6-2-70, Cl. 146-3.

Moriki, Juichi; and Shiosaki, Masaharu, to Matsushita Electric Industrial Co., Ltd. Piezo-electric transformer. 3,549,913, 12-22-70, Cl. 310-9.5

Morimoto, Kazuhisa: *See—*
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Murakami, Yoshinobu; and Morimoto, Kazuhisa,3,526,502.

Morimoto, Motoi: *See—*
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Murayama, Keisuke; and Morimura, Syoji,3,547,874.
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Morin, Bernard: *See—*
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Morin, Donald J., to S-M Engineering Corporation. Furnace construction with expansible muffle assembly. 3,514,084, 5-26-70, Cl. 263-8.

Morin, Joseph C., to Cupples Container Company. Radial extrusion die. 3,492,694, 2-3-70, Cl. 18-14.

Morin, Richard A.: *See—*
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Morin, Robert B.; and Jackson, Billy G., to Lilly, Eli, and Company. Certain 3-methyl-cephalosporin compounds. 3,507,861, 4-21-70, Cl. 260-243.

Morin, Theodore Joseph: *See—*
Prevett, Peter Dominick; and Morin, Theodore Joseph,3,526,782.

Morine, John Theodore, to Maher, D. L., Co. Method of cleaning gravel packed, gravel developed, and drilled igneous wells. 3,547,194, 12-15-70, Cl. 166-279.

Morine, Louis A.: *See—*
Vigneri, Ronald J.; Morine, Louis A.; and Hanusek, Frank A.,3,535,040.

Morine, Richard L. Apparatus for dispensing particulate material onto moving members. 3,528,386, 9-15-70, Cl. 118-7.

Morino, Hideki: *See—*
Tomita, Yukio; and Morino, Hideki,3,529,484.

Morino, Hiroshi: *See—*
Urushiwara, Hishashi; Morino, Hiroshi; and Suzuki, Misao,3,548,472.

Morio, Minoru: *See—*
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Rhgoshi, Akio; and Morio, Minoru,3,513,350.
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Morioka, Tamotsu: *See—*
Toritani, Yoshifumi; Hoshihara, Manabu; and Morioka, Tamotsu,3,514,572.

Morion, Marcel, to CSF-Compagnie Generale de Telegraphie Sans Fil. Head-up display systems for aircraft piloting. 3,511,465, 5-12-70, Cl. 248-479.

Morisada, Sunao: *See—*
Maeda, Tsutomu; Morisada, Sunao; Kasajima, Tatsuji; and Hashida, Takeshi,3,546,916.

Morisawa, Kazuyoshi: *See—*
Komamiya, Yasuo; Morisawa, Kazuyoshi; Tsuchiya, Seiji; Takeuchi, Noriaki; and Okamoto, Kenji,3,508,078.

Morishima, Shozo: *See—*
Mita, Ikuo; Mushiro, Masakatsu; Morishima, Shozo; Fujii, Kanji; and Tanaka, Yoshio,3,488,681.

Morishima, Tsuyoshi: *See—*
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Morison, Peter Philip, to Spillers Limited. Oiling of dough pieces. 3,496,907, 2-24-70, Cl. 118-2.

Morissette, Herbert E., to Monsanto Company. Concentrate dilution apparatus. 3,545,727, 12-8-70, Cl. 259-4.

Morita, Eiichi, to Monsanto Company. Making basic zinc double salts of 0,0-dialkyl phosphorodithioic acids. 3,514,476, 5-26-70, Cl. 260-429.9

Morita, Eiichi, to Monsanto Company. Method of vulcanizing rubber with dialkoxyphosphino- thioyl amino disulfides. 3,544,531, 12-1-70, Cl. 260-79.5

Morita, Eiichi; and Coran, Aubert Yaucher, to Monsanto Company. Synergistic combinations of a thiazole accelerator and certain phosphorodithioates for EPDM rubbers. 3,494,900, 2-10-70, Cl. 260-79.5

Morita, Eiichi; and Coran, Aubert Yaucher, to Monsanto Company. Synergistic accelerator combinations of phosphorodithioates and thiurams or dithiocarbonates for EPDM rubbers. 3,496,152, 2-17-70, Cl. 260-79.5

Morita, Eiichi; and Fukushima, Osamu, to Kurashiki Rayon Co., Ltd. Smooth surfaced sheet materials and method of manufacturing the same. 3,503,784, 3-31-70, Cl. 117-62.2

Morita, Katsuhiko, to Kabushiki Kaisha Daini Seikosha. Date correcting device for calendar watches. 3,487,631, 1-6-70, Cl. 58-58.

Morita, Katsuhiko, to Kabushiki Kaisha Daini Seikosha. Dial pin for a watch. 3,523,417, 8-11-70, Cl. 58-127.

Morita, Katsura; and Hashimoto, Naoto, to Takeda Chemical Industries, Ltd. Method for producing cyanoacetylene. 3,493,600, 2-3-70, Cl. 260-465.9

Morita, Katsura; and Hashimoto, Naoto, to Takeda Chemical Industries, Ltd. Method for producing chlorocyanoacetylene. 3,497,548, 2-24-70, Cl. 260-465.7

Morita, Katsura; Hashimoto, Naoto; and Saraie, Takahiro, to Takeda Chemical Industries, Ltd. Method for producing malononitrile. 3,502,709, 3-24-70, Cl. 260-465.8

Morita, Ken-Ichi; and Kobayashi, Tsuneo, to Toyo Rayon Kabushiki Kaisha. Butene polycarboxylic acid and its esters. 3,538,147, 11-3-70, Cl. 260-485.

Morita, Ken-ichi; Suzuki, Zennosuke; and Hirose, Hiromitsu, to Toyo Rayon Kabushiki Kaisha. 2-Hydroxy-hydrocarbyl acrylonitriles and preparation thereof by condensation of acrylonitrile and aldehydes. 3,499,024, 3-3-70, Cl. 260-465.

Morita, Kenzo, to Cabin Kogyo Kabushiki Kaisha. Automatic for focusing apparatus for use in optical image projector. 3,494,694, 2-10-70, Cl. 353-101.

Morita, Koh: *See—*
Ishii, Teiji; and Morita, Koh,3,544,432.

Morita, Masayoshi: *See—*
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Morita, Minoru; and Hanai, Misao, to Showa Densen Denran Kabushiki Kaisha, a/k/a Showa Electric Wire and Cable Co. Ltd. Polyethylene compositions containing a charge- transfer complex of an aromatic amine and a haloquinone. 3,538,068, 11-3-70, Cl. 260-94.9

Morita, Osamu: *See—*
Kesamaru, Toshinobu; and Morita, Osamu,3,507,914.

Morita, Shigeaki: *See—*
Kato, Takeshi; Maehara, Shigeru; Morita, Shigeaki; Nishiwaki, Minoru; Igarashi, Isoji; Tagiri, Koichi; and Narita, Susumu,3,494,763.

Morita, Takanobu: *See—*
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Morita, Takaya; and Abe, Shuya, to Raython Education Company. Damped servo system for TV tape recorder transducer head. 3,519,738, 7-7-70, Cl. 178-6.6

Morita, Takayuki: *See—*
Koike, Eiji; Naito, Seizo; Terao, Hisashige; and Morita, Takayuki,3,508,855.

Morita, Yoshio; and Armstrong, James E., III, to Koppers Company, Inc. High luster iridescent nacreous pigment. 3,493,410, 2-3-70, Cl. 106-291.

Moritz, Frederick G., to Potter Instrument Company, Inc. Motor control circuit. 3,500,163, 3-10-70, Cl. 318-373.

Moritz, Katsura; and Kobayashi, Shigeru, to Takeda Chemical Industries, Ltd. Lenthionine and a process for the preparation thereof. 3,488,362, 1-6-70, Cl. 260-327.

Moriuchi, Sadanobu, to Mantsune Tekko Kabushiki Kaisha (Nantsune Iron Works, Ltd.). Slicer. 3,515,190, 6-2-70, Cl. 146-101.

Moriuchi, Sadanobu, to Nantsune Tekko Kabushiki Kaisha. Slicer. 3,530,915, 9-29-70, Cl. 146-105.

Moriya, Hisanori: *See—*
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Moriyama, Hiroaki; Yamamoto, Hisao; Inaba, Shigeho; Nagata, Hideo; Tamaki, Toshio; and Hirohashi, Toshiyuki, to Sumitomo Chemical Company, Ltd. Process for producing benzodiazepine derivatives. 3,524,848, 8-18-70, Cl. 260-239.3

Moriyama, Kazuhiko, to Toyo Kogyo Company Limited. Seal construction for rotary combustion engine. 3,506,275, 4-14-70, Cl. 277-81.

Moriyama, Koh: *See—*
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Mork, George W.; and Novotny, Carl F., to Bucyrus-Erie Company. Cable support for the bucket attachment of a stick clam excavator or the like. 3,510,018, 5-5-70, Cl. 214-147.

Mork, George W.; and Novotny, Carl F., to Bucyrus-Erie Company. Hydraulic actuated clamshell bucket attachment for stick clam excavators or the like. 3,517,960, 6-30-70, Cl. 294-70.

Morkoski, James, to International Harvester Company. Flexible gang harrow. 3,517,751, 6-30-70, Cl. 172-572.

Morkoski, James, to International Harvester Company. Field tillage apparatus. 3,528,507, 9-15-70, Cl. 172-413.

Morkoski, James: *See—*
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Morlan, Alva F. Human head immobilization unit for panoramic X-ray machines. 3,521,057, 7-21-70, Cl. 250-50.

Morley, Charles E., to Mathews Company, The. Vehicle sign. 3,496,666, 2-24-70, Cl. 40-129.

Morley, Derek: *See—*
Norman, Neville Marshall; and Morley, Derek,3,512,830.

Morley, Edwin R.: *See—*
Heinzen, Robert A.; and Morley, Edwin R.,3,501,657.

Morley, Edwin R., to American Machine & Foundry Company. Rotor construction with directional control for a synchronous A.C. motor. 3,501,656, 3-17-70, Cl. 310-41.

Morley, Edwin R., to American Machine & Foundry Company. Bidirectional motor with directional control means for starting in either direction. 3,501,658, 3-17-70, Cl. 310-41.

Morley, John D., to Newcor Inc., mesne. Scarfing means for arc welder. 3,505,496, 4-7-70, Cl. 219-125.

Morley, John D.; and Salbenblatt, William F., to Newcor, Inc. Strip end welding machine. 3,511,961, 5-12-70, Cl. 219-83.

Morley, William E.; and McConnell, Howard M., to Harris-Intertype Corporation. Electrophotographic apparatus and method. 3,495,903, 2-17-70, Cl. 355-17.

Morlite Equipment Company: *See—*
Spiteri, Joseph, 3,541,321.

Morman, James Forrester; and Parker, James Brown, to Imperial Chemical Industries Limited. Process for making a modified carbohydrate material for smoking mixtures and the material made thereby. 3,545,448, 12-8-70, Cl. 131-2.
Morne, Sune Gunnar, to Bergsoe, Paul, & Son AB. Wheel balance weights. 3,495,877, 2-17-70, Cl. 301-5.
Morner, Bengt O. J. S.; and Dobbertin, Gunther Heinrich Wilhelm. Lubricating means for engine-driven chain saws. 3,542,154, 11-24-70, Cl. 184-6.
Morneweck, Samuel T.: *See—*
Maravetz, Lester L.; and Morneweck, Samuel T.,3,520,929.
Mornick Instrument Company: *See—*
Morgan, John D., 3,495,916.
Moro, Alberto. Mine clearing machine. 3,498,177, 3-3-70, Cl. 89-1.
Moro, Toshio, 1/2 to Ikegai Tekko Kabushiki Kaisha, and 1/2 to Showa Denko Kabushiki Kaisha, mesne. Needle-blade roller for manufacturing net-like split fabrics. 3,526,349, 9-1-70, Cl. 225-897.
Morocco, Joseph J., to Allis-Chalmers Manufacturing Company. Side shifted lift truck carriage. 3,512,671, 5-19-70, Cl. 214-730.
Morodomi, Tom T. Gopher trap. 3,488,878, 1-13-70, Cl. 43-86.
Moroni, Eneo C.; and Neuworth, Martin B., to Consolidation Coal Company, mesne. High purity 2,6-xylenol. 3,517,072, 6-23-70, Cl. 260-621.
Moroni, Rolf, to Collo-Rheincollodium-Koln-G.m.b.H. Method and means for removal of radio-active contaminants. 3,488,219, 1-6-70, Cl. 134-4.
Moroni, Rolf; Rinck, Friedrich Karl; and Kisteneich, Peter, to Collo-Rheincollodium Koln G.m.b.H. Method and means for removal of radioactive contaminants. 3,487,916, 1-6-70, Cl. 206-47.
Moroz, Pavel Samuilovich: *See—*
Neifeld, Mark Solomonovich; Moroz, Pavel Samuilovich; Nemenman, Leizer Zelikovich; and Ushakov, Vladimir Sergeevich,3,512,691.
Morozovsky, Bohdan N., to International Telephone and Telegraph Corporation. Spiral plate capacitor. 3,519,902, 7-7-70, Cl. 317-260.
Morozowich, Walter; and Lamb, Donald J., to Upjohn Company, The. Lincomycin-2-phosphate antibiotic compositions and process of treatment. 3,509,256, 4-28-70, Cl. 424-200.
Morozumi, Muneharu. Profile shifted involute internal gearing. 3,546,972, 12-15-70, Cl. 74-804.
Morra, Joseph E. Distributor cap and ignition coil assembly. 3,529,112, 9-15-70, Cl. 200-168.
Morrall, Stephen H.; Novak, Paul A.; and Wachowiak, Werner H., to Warwick Electronics Inc. Tuning structure for television receiver. 3,505,602, 4-7-70, Cl. 325-352.
Morreale, Anthony P.; and Irani, Raymond R., to Computer Devices Corporation. Hollow rotor synchronous inductor-type stepping motor with coil and P-M excitation. 3,519,859, 7-7-70, Cl. 310-49.
Morrell, Donald H.; and Williams, Alan, to Lucas, Joseph, (Industries) Limited. Method of manufacturing battery plate grids. 3,516,275, 6-23-70, Cl. 72-198.
Morrell, Francis E. (Frank): *See—*
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Morrell, John, & Co.: *See—*
Myers, Donald W., 3,536,184.
Prena, William F., 3,537,229.
Morren, Henri, to UCB (Union Chimique-Chemische Bedrijven) S.A. N-Aminoalkyl-benzothiazocines. 3,546,246, 12-8-70, Cl. 260-327.
Morrice, Edward, Jr.; Murphy, James E.; and Henrie, Thomas A., to United States of America, Interior. Method for the production of samarium alloys. 3,524,800, 8-18-70, Cl. 204-71.
Morrill, Charles D., to Rockwell Manufacturing Company. Remote packoff method and apparatus. 3,540,533, 11-17-70, Cl. 166-315.
Morrill, Ronald S.: *See—*
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Morrill, Stephen A.; Price, Donald J.; Morris, Robert B.; and Cannon, John G., to Westinghouse Air Brake Company. Remotely controlled railway brake apparatus. 3,532,878, 10-6-70, Cl. 246-182.
Morrill, Wayne J. Molded plug-in connector for motor. 3,541,493, 11-17-70, Cl. 339-62.
Morris, Abe P., deceased (by Morris, Mildred First National Bank of Arizona Lyle, Mulholland; co-executors), to Kennecott Copper Corporation. Deoxidation process. 3,528,802, 9-15-70, Cl. 75-76.
Morris, Adrian Gerald: *See—*
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Morris, Albert Earl, Jr., deceased (by Morris, Helen Knox; executrix). Throttle override control linkage. 3,551,069, 12-29-70, Cl. 416-27.
Morris, Albert Edward; and James, Reginald, to Lowe and Fletcher Limited. Key operated lock. 3,541,817, 11-24-70, Cl. 70-216.
Morris, Allan W., to McDonnell Douglas Corporation. Titanium anodizing process. 3,488,265, 1-6-70, Cl. 204-56.
Morris, Alton R.: *See—*
Murphy, Robert M.; and Morris, Alton R.,3,525,018.
Morris, Alton R., to Hubbell, Harvey, Incorporated. Switch condition indicator. 3,505,664, 4-7-70, Cl. 340-256.
Morris, Alton R.; and McDonald, Thomas M., to Hubbell, Harvey, Incorporated. Reed relay with electromagnetic biasing. 3,525,903, 8-25-70, Cl. 317-18.
Morris, Charles L. Stemware bracket. 3,491,893, 1-27-70, Cl. 211-60.
Morris, Charles W.; and Ulyate, John R., to Chromalloy American Corporation, mesne. Vehicle dynamic testing rig. 3,491,587, 1-27-70, Cl. 73-117.
Morris, David O. Method for the production of pig iron and steel. 3,499,755, 3-10-70, Cl. 75-46.
Morris, David Rowland; and Hawkes, George L., to United Kingdom Atomic Energy Authority. Determination of combined carbon in metals. 3,523,066, 8-4-70, Cl. 204-1.
Morris, Donald Cyral; Maassen, Gustav Christian; and Waterman, Raymond Reed, to Vanderbilt, R. T., Company, Inc. Rubber masterbatch containing humic acids. 3,533,988, 10-13-70, Cl. 260-41.5
Morris, Edward A.: *See—*
Marzocchi, Alfred; Morris, Edward A.; and Tamosauskas, Albert E.,3,490,985.
Morris, Elton K., to Dow Chemical Company, The. 1-Methyl-1-(substituted)-4-(pentachlorophenyl) piperazinium salts. 3,506,666, 4-14-70, Cl. 260-268.
Morris, Eugene D., to LTV Aerospace Corporation. Hypergolic igniter for solid motors. 3,541,796, 11-24-70, Cl. 60-256.
Morris, Franics J.: *See—*
Bodmer, Max G.; Crowell, Merton H.; Gordon, Eugene I.; and Morris, Franics J.,3,523,208.
Morris, Frank A., to Transmation, Inc. Monitor system employing touchtone keyset selection of monitored points. 3,543,266, 11-24-70, Cl. 340-412.
Morris, Frank A., to Transmation, Inc. Scanning monitor system. 3,543,267, 11-24-70, Cl. 340-413.
Morris, Geoffrey William: *See—*
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Morris, George H. Golfing target including score area defining rings encased in flexible sleeves. 3,526,405, 9-1-70, Cl. 273-181.
Morris, George H., to Morris Rod-Weeder Co., Ltd. Trip attachment for mounting cultivating tools. 3,529,673, 9-22-70, Cl. 172-266.
Morris, Gilbert V.: *See—*
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Morris, Glen B., to Collins Radio Company. Tape duplicator with master and copy tapes driven by same spindle and capstan means. 3,519,762, 7-7-70, Cl. 179-100.2
Morris, Harold B., to Electronic Systems, Inc. Acceleration dependent phase control seismic exploration. 3,489,997, 1-13-70, Cl. 340-15.5
Morris, Harold D.; and Buckingham, Joseph T., to Systron-Donner Corporation. Fluid rotor angular accelerometer. 3,520,196, 7-14-70, Cl. 73-516.
Morris, Helen Knox: *See—*
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Morris, Herbert C., to Texaco Inc. Color improvement of sulfur-containing lubricating oils with a mordenite type zeolite. 3,549,520, 12-22-70, Cl. 208-264.
Morris, Herbert C.; Bozeman, Paul P., Jr.; Horton, Howard T., Jr.; and Cummins, Billy H., to Texaco Inc. Catalytic dewaxing with the use of a crystalline alumino zeolite of the mordenite type in the presence of hydrogen. 3,539,498, 11-10-70, Cl. 208-111.
Morris, Herbert C.; and Shillinglaw, John P., Jr., to Texaco Inc. Isomerization of paraffinic hydrocarbons in the presence of a mordenite catalyst. 3,507,931, 4-21-70, Cl. 260-683.65
Morris, Herbert C.: *See—*
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Morris, Herbert, Limited: *See—*
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Morris, Herbert R.: *See—*
MacMaster, Malcolm D.; and Morris, Herbert R.,3,517,526.
Morris, Horton H.; and Turner, Kenneth L., to Freeport Sulphur Company. Clay products and method of producing same. 3,519,453, 7-7-70, Cl. 106-288.
Morris, Howard E.: *See—*
Rhinehart, Richard W.; Conn, Henry L.; and Morris, Howard E.,3,517,403.
Morris, Jack: *See—*
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Morris, James A., to Metco Incorporated. Knock-down reel. 3,524,604, 8-18-70, Cl. 242-115.
Morris, John M., to Rex Chainbelt Inc. Vibrator motor with self-container lubricant circulator. 3,546,505, 12-8-70, Cl. 310-81.

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United States of America,National Aeronautics and Space Administration, Administrator, 3,520,190.
Morris, John W., to PPG Industries, Inc. Glass strengthening by ion exchange. 3,506,423, 4-14-70, Cl. 65-30.
Haslimann, Artur Alois; Morris, John; Roger, Karl Wolfgang; and Lehrer, Alfred,3,507,546.
Morris, Kenneth B., to Crosfield Electronics Limited. Electrostatically assisted ink transfer. 3,489,082, 1-13-70, Cl. 101-153.
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Morris, Leslie Joe. Loose-leaf binding devices. 3,540,832, 11-17-70, Cl. 402-4.
Morris, Lester: *See—*
Goldman, Gordon K.; and Morris, Lester,3,531,508.
Morris, Lester; Seegman, Irvin P.; and Thompson, Ron E., to Products Research & Chemical Corporation. Mercaptan polymers. 3,503,930, 3-31-70, Cl. 260-48.
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Morris, Nathan K. Slicer. 3,509,926, 5-5-70, Cl. 146-171.
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Morris, Raymond A., to Smith, Paul, Inc. Variable fixed precision value inductor. 3,496,503, 2-17-70, Cl. 336-65.
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Morris, Richard L.; and Blievernicht, Harlan H., to Carrier Corporation. Atmospheric vent system. 3,504,661, 4-7-70, Cl. 126-116.
Morris, Richard Michael, to General Electric Company Limited, The. Electric bistable circuits. 3,544,772, 12-1-70, Cl. 235-92.
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Morris, Robert G., to Champion Spark Plug Company. Wound resistor. 3,529,273, 9-15-70, Cl. 338-302.
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Morris, Robert M.; and Repholz, John M., to Bell Telephone Laboratories, Incorporated. Operator call transfer and overlap call switching equipment. 3,539,733, 11-10-70, Cl. 179-27.
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Morris, Roger E., to Goodrich, B. F., Company, The. Substituted norbornene compounds. 3,536,681, 10-27-70, Cl. 260-86.1
Morris, Rupert C.; Van Winkle, John L.; and Mason, Ronald F., to Shell Oil Company. Tertiary organophosphine-cobalt-carbonyl complexes. 3,496,203, 2-17-70, Cl. 260-439.
Morris, Rupert C.; Van Winkle, John L.; and Mason, Ronald F., to Shell Oil Company. Tertiary organophosphine-cobalt- carbonyl complexes. 3,496,204, 2-17-70, Cl. 260-439.
Morris, Rupert C.: *See—*
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Mason, Ronald F.; Van Winkle, John L.; and Morris, Rupert C.,3,502,730.
Van Winkle, John L.; Morris, Rupert C.; and Mason, Ronald F.,3,501,515.
Morris, Sheldon J. Portable spark plug cleaner. 3,538,644, 11-10-70, Cl. 51-8.
Morris, Stanley Thomas. Liquid filter assemblies. 3,487,940, 1-6-70, Cl. 210-266.
Morris, Virginia B. Antiskid device. 3,513,897, 5-26-70, Cl. 152-233.
Morris, Willard E.: *See—*
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Morris, William G.; and Lifshin, Eric, to General Electric Company. Scanning electron microscope wherein an image is formed as a function of specimen current. 3,549,883, 12-22-70, Cl. 250-49.5
Morris, Woodrow. Edger set works. 3,534,789, 10-20-70, Cl. 143-37.
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Morrish, Peter Geoffrey Alan. Coat hanger tallies. 3,535,808, 10-27-70, Cl. 40-322.
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Morrison, Charles Samuel, to Deere & Company. Device for sensing operating conditions in a harvesting machine. 3,515,144, 6-2-70, Cl. 130-26.
Morrison, Donald J.; and Tanner, Howard C., to International Business Machines Corporation. Recording and playback system incorporating a first character positioning system. 3,523,287, 8-4-70, Cl. 340-174.1
Morrison, Edward D.; and Williams, Robert F., Jr., to Eastman Kodak Company. Vapor barrier polyolefin films. 3,488,211, 1-6-70, Cl. 117-68.5
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Morrison, Elbert F.; and Joy, Raymond D., to Burlington Industries, Inc. System for converting continuous filament tow into staple sliver. 3,522,634, 8-4-70, Cl. 19-0.6
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Morrison, John G., to Sperry Rand Corporation. Controllable electronic attenuator having zero differential phase shift. 3,539,909, 11-10-70, Cl. 323-111.
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Morrison, Wallace T. Foldable bed for trailers and the like. 3,540,066, 11-17-70, Cl. 5-141.

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Morrisroe, John J.; and Banigan, Thomas F., to Pilot Chemical Company. Alkyl-tetrahydropyranols and ethoxylated alkyl-tetrahydropyranols. 3,544,603, 12-1-70, Cl. 260-345.9

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Morrissey, William M., Jr.; Merryman, Bob D.; and Bottoms, Garrell C., to General Electric Company. Control circuit for refrigerator including case heater means. 3,495,416, 2-17-70, Cl. 62-155.

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Morrow, Harry M., to Bowdil Company, The. Cutting apparatus. 3,498,677, 3-3-70, Cl. 299-86.

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Morrow, John H.; and Mednick, Charles, to Magnacraft Manufacturing Company. Hub for chain sprocket or the like. 3,501,972, 3-24-70, Cl. 74-243.

Morrow, John T.; and Rowley, Walter E., Jr., to Edwards Company, Inc. Integrity check for fire alarm circuits. 3,540,042, 11-10-70, Cl. 340-409.

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Morrow, Robert H.; and Perneski, Anthony J., to Bell Telephone Laboratories, Incorporated. Single wall domain apparatus having intersecting propagation channels. 3,543,255, 11-24-70, Cl. 340-174.

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Morse, John F., to North American Rockwell Corporation. Single lever control unit. 3,511,117, 5-12-70, Cl. 74-876.

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Mortensen, Kay S.; Hagmann, Mark J.; and Jessop, Harvey A., to Intermountain Research and Engineering Co., Inc. Explosive slurry containing pulpy fibrous matter, finely divided carbonaceous material and powerful inorganic oxidizer salt. 3,507,718, 4-21-70, Cl. 149-3.

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Morton, Lester C.; and Voos, Frank J., to National Distillers and Chemical Corporation. Pressure relief valve. 3,548,870, 12-22-70, Cl. 137-540.

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Morton, Peter Harlow; and Clark, Peter Vincent McDonald, to Imperial Metal Industries (Kynoch) Limited. Hafnium alloys. 3,515,544, 6-2-70, Cl. 75-134.

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Moser, Rabin, to Xerox Corporation. Heat fixing apparatus for fusible material. 3,498,596, 3-3-70, Cl. 263-6.

Moser, Rabin, to Xerox Corporation. Roll apparatus. 3,505,716, 4-14-70, Cl. 29-116.

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Muhler, Joseph C., to Indiana University Foundation. Anticariogenic compositions comprising sodium pentafluorostannite, $NaSn_2F_5$, and methods for utilizing same. 3,492,401, 1-27-70, Cl. 424-131.
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Muhlhauser, Fritz. Receptacle and display packet. 3,525,376, 8-25-70, Cl. 150-52.
Muhlhausler, Wolfgang, to Fouquet-Werk Frauz & Planck. Automatic thread delivery device for textile machines. 3,490,710, 1-20-70, Cl. 242-47.01
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Muijderman, Everhardus Albertus, to U.S. Philips Corporation, mesne. Hydrodynamic bearing system providing axial self- adjustment. 3,511,546, 5-12-70, Cl. 308-9.
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Muijderman, Everhardus Albertus; Visscher, Johannes Mattheus; and Van Der Hilst, Jan, to U.S. Philips Corporation, mesne. Floating shoe for one or more recording heads. 3,525,987, 8-25-70, Cl. 340-174.1
Muilwijk, Dirk, to U.S. Philips Corporation, mesne. Transceiver which tests both transmitting and receiving frequencies before making a call. 3,535,636, 10-20-70, Cl. 325-25.
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Muir, Earl B., to White Motor Corporation. Control mechanism. 3,550,460, 12-29-70, Cl. 74-89.
Muir, Max K., to Stromberg Datagraphics, Inc. Optical system. 3,549,254, 12-22-70, Cl. 355-55.
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Muirhead, John W. File fastener. 3,534,447, 10-20-70, Cl. 24-153.
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Mukulis, Rimantas-Ionas Domininkovich: *See—*
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Muller, Emanuel. Convertible article. 3,544,157, 12-1-70, Cl. 297-118.
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Muller, Erwin; Kallert, Wilhelm; Ivanyi, Joszef; and Thoma, Wilhelm, to Farbenfabriken Bayer Aktiengesellschaft. Hydrolysis resistant elastomeric poly (carbonate urethanes). 3,509,233, 4-28-70, Cl. 260-858.
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Muller, Gerhard; Behrenz, Wolfgang; Hiltmann, Rudolf; and Wollweber, Hartmund, to Farbenfabriken Bayer Aktiengesellschaft. Bicyclic-substituted ureas and their insect- and mite-repellent compositions and methods of use. 3,534,141, 10-13-70, Cl. 424-322.
Muller, Gerhard; Merten, Rudolf; Dunwald, Willi; and Mielke, Karl-Heinz, to Farbenfabriken Bayer Aktiengesellschaft. Polyimides which are soluble in organic solvents. 3,493,540, 2-3-70, Cl. 260-47.
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Muller, Hendrikus Gerhardus, to N.V. Machinefabriek B & S Bedrijven v.d. Woerdt. Rotary article transfer device. 3,547,250, 12-15-70, Cl. 198-30.
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Muller, Hubert; and Fendt, Hermann, to Fendt, Xaver, & Co. Lateral brace for the lower lift guide rods of tractors or the like. 3,503,625, 3-31-70, Cl. 280-474.
Muller, Jacques. Device for detecting quantity of water in a liquid fuel. 3,522,530, 8-4-70, Cl. 324-65.
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Muller, Jiri; and Kmeco, Rudolf, to Papcel Strojirny Pro Prumysl Celulosy a papiru, narodni podnik. Centrifugal separator. 3,501,001, 3-17-70, Cl. 209-211.
Muller, Johannes, to Handtmann, Albert Metallgusswerk Armaturen- & Fleischereimaschinenfabrik. Feeding device for pulpy masses of the type of a bucket pump, particularly for sausage filling machines. 3,543,330, 12-1-70, Cl. 17-37.
Muller, Johannes; and Kuhn, Rudolf, to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler. Process for detoxification of cyanide and nitrite containing aqueous solutions. 3,502,576, 3-24-70, Cl. 210-63.
Muller, Johann, to Deckel, Friedrich, Prazisions Mechanik & Maschinenbau. Milling and drilling tool. 3,511,129, 5-12-70, Cl. 90-14.
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Muller, John George. Beverage apparatus. 3,495,522, 2-17-70, Cl. 99-236.
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Muller, Ludwig. Method of forming a pile in situ. 3,512,365, 5-19-70, Cl. 61-53.52
Muller, Ludwig. Construction pile and a method of producing same in situ. 3,540,225, 11-17-70, Cl. 61-53.52
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Muller, Oke W. Centrifugal separator. 3,546,854, 12-15-70, Cl. 55-455.
Muller, Paul A., to Celfil Company Establishment. Method and apparatus for producing a tobacco filter rod or cord from a web of fibrous material. 3,518,921, 7-7-70, Cl. 93-1.

Muller, Paul A., to Celfil Company Establishment. Apparatus for making filtering material for cigarettes. 3,519,521, 7-7-70, Cl. 156-592.

Muller, Paul A., to Celfil Company Establishment. Method of manufacturing filter ropes. 3,546,325, 12-8-70, Cl. 264-47.

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Muller, Richard; and Dathe, Christian, to Institut fur Silikon- und Fluorkarbon-chemie. Production of salts of organofluorosilicic acids. 3,525,763, 8-25-70, Cl. 260-448.2

Muller, Richard; Dathe, Christian; and Mross, Dieter, to Institut fur Silikon- und Fluorkarbon-Chemie. Method for the preparation of salts of organo- fluosilicic acids in non-aqueous solvents. 3,517,043, 6-23-70, Cl. 260-448.2

Muller, Richard; Reichel, Sigrid; and Dathe, Christian, to Institut fur Silikon-und Fluorkarbon-Chemie. Process for making organometal compounds of heavy metals by means of organotrifluorosilanes. 3,549,678, 12-22-70, Cl. 260-430.

Muller-Rid, Wilhelm; Schoffmann, Ernst Albert; and Schon, Werner, to Voith, J. M., GmbH., Firma. Apparatus for producing binder particles by precipitation. 3,529,936, 9-22-70, Cl. 23-252.

Muller, Robert D., to GAF Corporation. Copy paper feeding and refolding guide. 3,514,096, 5-26-70, Cl. 270-61.

Muller, Robert D., to GAF Corporation. Photocopy developing apparatus. 3,534,673, 10-20-70, Cl. 95-94.

Muller, Robert M., to American Optical Corporation. Variable magnification stereo optical system. 3,502,392, 3-24-70, Cl. 350-184.

Muller, Robert M., to American Optical Corporation. Variable magnification stereo optical system. 3,503,675, 3-31-70, Cl. 350-184.

Muller, Rolf: *See—*
Staudt, Heinrich; Muller, Rolf; and Hofmann, Eberhard,3,530,845.

Muller, Rudolf: *See—*
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Muller, Walter: *See—*
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Hero, Franz; Odermatt, Karl; and Muller, Walter,3,491,384.
Hero, Franz; Odermatt, Karl; and Muller, Walter,3,524,416.
Schmidt, Alfred; Weinrotter, Ferdinand; and Muller, Walter,3,501,922.
Weinrotter, Ferdinand; Schmidt, Alfred; Muller, Walter; and Bohler, Walter,3,497,510.

Muller, Warren H.: *See—*
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Muller, Werner; and Oehler, Werner, to L. & C. Steinmuller G.m.b.H. Pipe wall for steam producers. 3,509,856, 5-5-70, Cl. 122-6.

Muller, Wilfried; and Szangolies, Klaus, to Jena, Veb Carl Zeiss. Ancillary device for the determination of the instantaneous camera constant. 3,514,205, 5-26-70, Cl. 355-52.

Muller, Willi: *See—*
Dinger, Hans; Deutschmann, Herbert; Conrad, Ulrich; and Muller, Willi,3,491,731.
Fehrenbach, Siegfried; Muller, Willi; and Schneider, Karl-Heinz,3,511,270.

Muller, Wolf F., to United States Catheter & Instrument Corporation. Catheter-infuser-connector. 3,502,097, 3-24-70, Cl. 137-318.

Muller, Wolfgang: *See—*
Dathe, Joachim; Muller, Wolfgang; and Ghosh-Dastidar, Shib,3,498,853.

Muller-Berghaus, Joachim: *See—*
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Muller-Calgan, Helmut: *See—*
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Muller-Lobeck, Eberhard: *See—*
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Muller-Schiedmayer, Gunther: *See—*
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Muller-Schlenker: *See—*
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Mullersman, Ferdinand H., to General Electric Company. Rapid charge rates for sealed cells. 3,531,706, 9-29-70, Cl. 320-20.

Mullery, Alvin P.; and Driscoll, Graham C., Jr., to International Business Machines Corporation. Time-sharing arrangement. 3,541,520, 11-17-70, Cl. 340-172.5

Mulley, William G., to United States of America, Navy. Situation display for aircraft navigation employing CRT display of the mean course line. 3,507,993, 4-21-70, Cl. 178-68.

Mullick, Satish K.: *See—*
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Sardessai, Kashinath S.; and Mullier, Michel E.,3,547,888.

Mulligan, James. Aircraft ejection system. 3,520,500, 7-14-70, Cl. 244-122.

Mulligan, John: *See—*
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Mulligan, William L.: *See—*
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Mullikin, Josiah W. Detachable golf spike attachment. 3,520,075, 7-14-70, Cl. 36-65.

Mullikin, Wilbur J., to Hurvitz, Hyman. Apparatus to restore heartbeat. 3,489,140, 1-13-70, Cl. 128-51.

Mullin, Frank J., to Bell Telephone Laboratories, Incorporated. Audio squelch circuit for time division diplexed television. 3,549,795, 12-22-70, Cl. 178-5.6

Mullin, John Brian: *See—*
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Mullin, Joseph V.: *See—*
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Mullin, Robert N., to Bean, Johnny, Machinery Co. Dowel installing machine. 3,507,438, 4-21-70, Cl. 227-14.

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Mullins, Albert A., to Schlumberger Technology Corporation. Selectively-operable well tools. 3,494,419, 2-10-70, Cl. 166-150.

Mullins, Albert A., to Schlumberger Technology Corporation. Formation tester. 3,519,075, 7-7-70, Cl. 166-150.

Mullins, C. B., Inc.: *See—*
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Mullins, Clark B.: *See—*
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Ward, Peter Arthur; Mullins, John Albert; and Morris, Geoffrey William,3,532,129.

Mullins, John W. Line clamping self-tapping service valve. 3,509,905, 5-5-70, Cl. 137-318.

Mullins, John W. Service valve. 3,543,788, 12-1-70, Cl. 137-318.

Mullins, John W. Service valve. 3,547,144, 12-15-70, Cl. 137-318.

Mullins, John W. Line tapping service valve. 3,548,861, 12-22-70, Cl. 137-318.

Mullins, Robert O.; and Mullins, Clark B., to Mullins, C. B., Inc. Hydraulic blast gun. 3,540,659, 11-17-70, Cl. 239-508.

Mullvain, Wallace C., Sr.; Joch, John, Jr.; and Matheus, Norman R., to J/G Researched Products, Inc. Dough panning device. 3,527,173, 9-8-70, Cl. 107-4.

Mulno, Lester F., to Star Expansion Industries Corporation. Power actuated tool. 3,548,590, 12-22-70, Cl. 60-26.1

Mulready, Richard C., to United Aircraft Corporation. Mirror device. 3,514,776, 5-26-70, Cl. 343-6.

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Multer, Howard C., to Stanley Works, The. Metal clad door. 3,512,305, 5-19-70, Cl. 49-503.

Multi-Minerals Limited: *See—*
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Cochran, Linden Wayne, 3,540,860.
Cochran, Linden Wayne, 3,550,917.

Multi-Photo Camera Corporation: *See—*
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Multicraft, Incorporated: *See—*
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Multicup Automatic Company, Inc.: *See—*
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Multifastener Corporation: *See—*
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Multronics, Inc.: *See—*
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Mulvany, Richard B.; and Roshon, Clyde C., to International Business Machines Corporation. Automatic film processor. 3,525,295, 8-25-70, Cl. 95-89.

Mulvey, Dennis M.; and Pollak, Peter I., to Merck & Co., Inc. Method for preparing 2,6-dichloro-4-nitrobenzoic acid and intermediate therefor. 3,542,858, 11-24-70, Cl. 260-515.

Mulvey, Dennis M.: *See—*
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Mulvey, Gerard Edmund; and Boake, George Elliott. Luminaire. 3,502,860, 3-24-70, Cl. 240-9.

Mulvey, Gerard Edmund; and Boake, George Elliott. Universal air handling troffer frame. 3,506,822, 4-14-70, Cl. 240-9.

Mulvey, Thomas B.; Hegerman, Ernie; and Schuessler, Elwood V. Display device. 3,543,425, 12-1-70, Cl. 40-86.

Muly, Emil C., Jr., to National Research Corporation. Low energy sputtering apparatus for operation below one micron pressure. 3,507,774, 4-21-70, Cl. 204-298.

Muly, Emil C., Jr., to National Research Corporation. Sputtering. 3,530,057, 9-22-70, Cl. 204-298.

Muly, Emil C., Jr.; and Oman, Robert M., to National Research Corporation. Sputtering apparatus. 3,516,920, 6-23-70, Cl. 204-298.

Muly, Emil C., Jr.: *See—*
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Mumma, Harold J.; and Kalmar, Arthur F., to FMC Corporation. Needle cleaning brush. 3,528,367, 9-15-70, Cl. 101-26.

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Mun, Henry C. Hand truck. 3,503,623, 3-31-70, Cl. 280-47.28

Munakata, Chusuke, to Hitachi, Ltd. Electron microscope employing a modulated scanning beam and a phase sensitive detector to improve the signal to noise ratio. 3,535,516, 10-20-70, Cl. 250-49.5

Munakata, Hideaki; Kamatani, Hiroyoshi; Uejima, Akira; Ukai, Tetsuo; and Mizumoto, Toshiyuki, to Toyo Boseki Kabushiki Kaisha. Production of linear polyesters. 3,520,853, 7-21-70, Cl. 260-78.4

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Munch, Edvard, to Moore Associates, Inc. Automatic channel selection system for a multi- channel communication system. 3,495,175, 2-10-70, Cl. 325-65.

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Munch, Karl Alan, to Kronseder, Hermann. Labeling machine with three or more simultaneously oscillating label magazines. 3,528,871, 9-15-70, Cl. 156-571.

Munch, Karl Alan, to Kronseder, Hermann. Label feeder with varibale speed drive. 3,537,934, 11-3-70, Cl. 156-364.

Munch, Peter: *See—*
Dany, Franz-Josef; Kandler, Joachim; and Munch, Peter,3,551,379.

Munch, Ralph H., to Monsanto Company. Cavitation measurement method. 3,538,747, 11-10-70, Cl. 73-53.

Munch, Walter F., Jr., to Geigy Chemical Corporation. Process for the preparation of optically active benzazocines. 3,511,846, 5-12-70, Cl. 260-294.7

Munch, Walter, Jr., to Baldwin, D. H., Company. Bass register keying system employing preference networks. 3,509,262, 4-28-70, Cl. 84-1.01

Munch, Walter, Jr., to Baldwin, D. H., Company. Simulated brushed cymbal tone generating system for electronic organs. 3,516,319, 6-23-70, Cl. 84-1.05

Munch, Walter, Jr., to Baldwin, D. H., Company. Amplifier systems for electric guitars and the like. 3,524,143, 8-11-70, Cl. 330-30.

Munch, Walter, Jr., to Baldwin, D. H., Company. Amplifiers powered from a single power supply and driven contra-phasally. 3,542,953, 11-24-70, Cl. 179-1.

Munch, Walter, Jr., to Baldwin, D. H., Company. Keying system for electrical musical instruments. 3,544,697, 12-1-70, Cl. 84-1.26

Munch, Walter, Jr., to Baldwin, D. H., Company. Electronic organ with alternate reiteration by three-note groups. 3,549,778, 12-22-70, Cl. 84-1.03

Munch, Walter, Jr.; and Uetrecht, Dale M., to Baldwin, D. H., Company. Chime systems and the like for electronic organs. 3,499,093, 3-3-70, Cl. 84-1.24

Munch, Walter, Jr.; and Uetrecht, Dale M., to Baldwin, D. H., Company. Electronic latch and wipeout system for musical instruments. 3,542,935, 11-24-70, Cl. 84-1.1

Munch, Wilhelm: *See—*
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Munchbach, Curt, to Ungerer, Irma. Flying shears for cutting sheet material. 3,518,910, 7-7-70, Cl. 83-316.

Munchbach, Curt, to Ungerer, Irma, (Nec) Dollinger. Flying shears. 3,548,698, 12-22-70, Cl. 83-311.

Muncheryan, Hrand M.: *See—*
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Muncke, Ludwig; Buchmuller, Josef; and Hartlieb, Otto, to Deere & Company. Three-point hitch. 3,515,412, 6-2-70, Cl. 280-461.

Munday, James C.; and Neale, Junius B., to General Electric Company. Method for manufacturing aligned-grids electron discharge device. 3,520,040, 7-14-70, Cl. 29-25.16

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Munday, John Worthington; and Tomlinson, Jeffrey Ernest, to British Aluminum Company Limited, The. Methods of manufacturing clad aluminum alloys. 3,498,849, 3-3-70, Cl. 148-11.5

Munden, Walter B., 33 1/3 to Packer, Luther N. Toilet exhaust system. 3,523,309, 8-11-70, Cl. 4-213.

Munder, Johannes: *See—*
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Munder, Johannes; Moraw, Roland; and Hackmann, Ernst-August, to Kalle Aktiengesellschaft. Process for the preparation of positive copies and material for performing the process. 3,512,975, 5-19-70, Cl. 96-48.

Munder, Johannes; Ruckert, Hans; Steppan, Hartmut; Messwarb, Gunter; and Luders, Walter, to Kalle Aktiengesellschaft. Light-sensitive reproduction layer and reproduction material provided therewith. 3,539,343, 11-10-70, Cl. 96-35.1

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Munder, Joseph Anthony; and Cloud, Edwin Auburn, to Johns-Manville Corporation. Method of coating the interior surface of a porous pipe. 3,488,206, 1-6-70, Cl. 117-18.

Mundil, Rudolf, to Farbenfabriken Bayer Aktiengesellschaft. Process for the preparation of hydrazine by tray column fractionation. 3,494,737, 2-10-70, Cl. 23-190.

Munding, German, to Bolkow Gesellschaft mit beschrankter Haftung. Liquid fuel rocket engine construction. 3,546,883, 12-15-70, Cl. 60-258.

Mundinger, William D., to Pullman Incorporated. Pneumatic outlet assembly for hoppers. 3,527,503, 9-8-70, Cl. 302-52.

Mundinger, William D., to Pullman Incorporated. Material discharge arrangement for hopper structures. 3,529,747, 9-22-70, Cl. 222-41.

Mundlos, Eberhard; Mohr, Reinhard; Ostermeier, Johann; Spieb, Bernhard; and Hohmann, Kurt, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Water-soluble quarternary amine containing monoazo dyestuffs. 3,518,244, 6-30-70, Cl. 260-149.

Mundlos, Eberhard; Mohr, Reinhard; Ostermeier, Johann; Spiess, Bernhard; and Hohmann, Kurt, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Basic monoazodyestuffs containing a 3-indolyl- or 5-amino-4-pyrazolyl group. 3,541,076, 11-17-70, Cl. 260-146.

Mundt, Diedrich E., to Hold-Heet Products Corporation. Thermostatic switch and safety circuit therefor. 3,533,039, 10-6-70, Cl. 337-103.

Mundt, Peter; Urban, Otfried; and Neuhold, Arnold, to Geimuplast Peter Mundt KG. Process and apparatus for mounting transparencies. 3,524,299, 8-18-70, Cl. 53-23.

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Munger, John R.; and Tate, Sherman E., to United States of America, Army. Rocket launcher for launching rockets with high initial acceleration. 3,550,501, 12-29-70, Cl. 89-1.816

Munger, Robert O., Jr.: *See—*
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Mungo, Adolph J., to Drum Fire, Inc. Fireplace flame simulating device. 3,499,239, 3-10-70, Cl. 40-106.53

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Munk, Miner Nelson, to Varian Associates. Micro adsorption detector for liquid chromatography. 3,535,918, 10-27-70, Cl. 73-61.1

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Munn, Dorothy R., to Grefco, Inc. Process for beneficiating diatomaceous earth ores and product. 3,547,260, 12-15-70, Cl. 209-3.

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Munn, Vaughn K., to Stromberg-Carlson Corporation. Repertoire dialling system for telephone exchange. 3,497,629, 2-24-70, Cl. 179-18.
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Munnich, Karl; and Minikes, Hans W., to Eurograph Gesellschaft fur Photomechanik GmbH. Machine for loading and unloading a cassette with a photosensitive sheet. 3,538,829, 11-10-70, Cl. 95-27.

Munoz, Robert M., to United States of America, National Aeronautics and Space Administration. Nonlinear analog-to-digital converter. 3,533,098, 10-6-70, Cl. 340-347.

Munro Systems Corporation: *See—*
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Munro, William H., to Universal Oil Products Company. Rectification with condensed overhead used as reflux and stripping gas. 3,494,861, 2-10-70, Cl. 208-355.

Munro, William H.; and Hamblin, Robert J. J., to Universal Oil Products Company. Mixed-phase thermal cracking process. 3,549,519, 12-22-70, Cl. 208-125.

Munroe, Frederick Edwards; and Uren, Albert Norman, to National Research Development Corporation. Measuring instruments. 3,540,129, 11-17-70, Cl. 33-143.

Munroe, Richard W., to Maremont Corporation. Apparatus for cutting tow. 3,530,751, 9-29-70, Cl. 83-176.

Munroe, Ronald G., to Eagle Electric Mfg. Co., Incorporated. Quiet snap action electric switch. 3,525,834, 8-25-70, Cl. 200-68.

Munroe, William O., to Anot Controls Corporation. Modular valve and operator for fluid logic and control system. 3,516,442, 6-23-70, Cl. 137-625.66

Munse, Robert A., to Microdot Inc., mesne. Tool assembling spring metal C-clips to panels. 3,501,827, 3-24-70, Cl. 29-225.

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Munsey, George B., to Munsey Products, Inc. Thermostatically controlled cooking apparatus. 3,508,485, 4-28-70, Cl. 99-331.

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Munson, Arden L., to Mallory, P. R., & Co., Inc. Plug for wiring of different voltage levels. 3,546,662, 12-8-70, Cl. 339-192.

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Munson, Whitney K.; and Ricci, John N., said Ricci assor. to said Munson. Staple locating and removing device. 3,528,643, 9-15-70, Cl. 254-28.

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Munster, Allen C., to Conductron Corporation. Optical image display system. 3,506,781, 4-14-70, Cl. 178-7.2

Munsters, Carl, and Company: *See—*
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Munt, Irwin, to Weston Instruments, Inc. Circuit for generating two pulses having a controlled time-spaced relationship to each other. 3,497,814, 2-24-70, Cl. 328-62.

Muntendam, Rudolf Wilfried, to Bull General Electric (Nederland) N.V. Disc-type memory device. 3,496,788, 2-24-70, Cl. 74-568.

Munters, Carl, & Co.: *See—*
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Murphy, Patrick L.; and Brown, Earl L., to Carrier Corporation. Absorption refrigeration machine. 3,520,145, 7-14-70, Cl. 62-101.

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McNeely, Lowell A.; and Murphy, Patrick L.,3,505,827.

Murphy, Robert A., to General Electric Company. Siloxane cured with an alkoxycyclopolysiloxane. 3,528,941, 9-15-70, Cl. 260-37.

Murphy, Robert E.: *See—*
Blomgren, Roland A.; Dokter, Henry J.; Murphy, Robert E.; Carey, Harry W.; and Waxler, Burton J.,3,519,442.

Murphy, Robert H.; and Gordon, Julian, to Wiremold Company, The. Variable buoyancy arrangement. 3,541,985, 11-24-70, Cl. 114-16.

Murphy, Robert M., to Hubbell, Harvey, Incorporated. Plug-in SCR lamp dimmer with wall switch and socket. 3,523,212, 8-4-70, Cl. 315-291.

Murphy, Robert M.; and Morris, Alton R., to Hubbell, Harvey, Incorporated. Ground leakage current interrupter. 3,525,018, 8-18-70, Cl. 317-18.

Murphy, Robert N., to Case, J. I., Company, mesne. Torque absorbing coupler. 3,550,655, 12-29-70, Cl. 144-34.

Murphy, Robert W., to International Business Machines Corporation. Execution plotter. 3,522,597, 8-4-70, Cl. 340-324.

Murphy, Robert W., to International Business Machines Corporation. Associative memory with high, low and equal search. 3,533,085, 10-6-70, Cl. 340-172.5

Murphy, Robert W., to International Business Machines Corporation. Computer monitoring system. 3,540,003, 11-17-70, Cl. 340-172.5

Murphy, Tom H.; and Tucker, Don E. Continuous cryogenic process combining liquid gas and mechanical refrigeration. 3,507,128, 4-21-70, Cl. 62-63.

Murphy, Tom H.; and Tucker, Don E. Combined liquid gas-mechanical freezing process and apparatus therefor. 3,512,370, 5-19-70, Cl. 62-64.

Murphy, Walter T.: *See—*
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Murphy, Walter T.; and Stewart, Floyd D., to Goodrich, B. F., Company, The. Poromeric laminate. 3,536,572, 10-27-70, Cl. 161-84.

Murphy, William D., to Sylvania Electric Products, Inc. Cathode ray tube system. 3,534,223, 10-13-70, Cl. 315-106.

Murphy, William J.: *See—*
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Murr, William C., to Berkeley Tonometer Company. Uterine evacuator. 3,506,010, 4-14-70, Cl. 128-276.

Murrah, Edmund S., to Morgan Construction Company. Means for counting, bundling and weighing of elongated elements. 3,497,084, 2-24-70, Cl. 214-2.

Murray, Allan G., to Uniroyal, Inc. Continuous emulsion polymerization of styrene and acrylonitrile by addition of monomers in plural stages with all of emulsifier added in first stage. 3,547,857, 12-15-70, Cl. 260-85.5

Murray, Charles R., to Stauffer Chemical Company of Canada, Ltd., mesne. Reverse roll coating process and apparatus. 3,511,696, 5-12-70, Cl. 117-111.

Murray, Charles Wesley, to Heppenstall Company. Cutter knives and methods of making the same. 3,541,910, 11-24-70, Cl. 83-676.

Murray Company of Texas, Inc.: *See—*
Neitzel, Joseph C.; and Dickson, G. W., 3,511,019.
Neitzel, Joseph C., 3,525,198.
Stone, Alan J., 3,515,445.
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Murray Corporation: *See—*
Kish, Arthur S., 3,526,416.
Kish, Arthur S., 3,530,900.

Murray, David W.; and Quittenton, Richard Charles, to Labatt, John, Limited. Regeneration of nylon used to treat beer. 3,551,351, 12-29-70, Cl. 252-415.

Murray, Donald A.; Knapp, William H.; and De Pauw, Richard A., to International Harvester Company. Axial-flow sheller and grinder combine. 3,529,645, 9-22-70, Cl. 146-71.

Murray, Donald Edward: *See—*
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Murray, Donald F. Spectacle rack. 3,519,138, 7-7-70, Cl. 211-13.

Murray, Donald Wayne; and Wheeler, Robert W., to PPG Industries, Inc. Fusing glass sheets by electric heat. 3,510,285, 5-5-70, Cl. 65-40.

Murray, Edward D.; and Prince, Margaret P., to Labatt, John, Limited. Process for preparing milk coagulating enzyme complex. 3,507,750, 4-21-70, Cl. 195-66.

Murray, Edward Donald; Gruetzner, Volker Ekkehard; and Irvine, Donald Mc Lean, to Labatt, John Limited. Manufacture of cheddar cheeses using a milk coagulating enzyme complex. 3,542,563, 11-24-70, Cl. 99-116.

Murray, Frank McDonald, to Imperial Chemical Industries Limited. Marine seismographic prospecting. 3,493,074, 2-3-70, Cl. 181-0.5

Murray, George W.: *See—*
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Murray, Herbert C.: *See—*
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Murray, Hilton B. Kitchen cabinet built-in dispenser for rolled sheet material. 3,492,056, 1-27-70, Cl. 312-242.

Murray, Ian, to United States of America, Atomic Energy Commission. Optical extensometer. 3,549,257, 12-22-70, Cl. 356-32.

Murray, James E., to Harris Intertype Corporation. Alphanumeric character display. 3,519,876, 7-7-70, Cl. 315-18.

Murray, Jerome L. Combined hose, nozzle and sprinkler. 3,490,699, 1-20-70, Cl. 239-458.

Murray, John E.: *See—*
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Murray, John M., to Cerco Corporation. Portable storage rack or pallet. 3,499,398, 3-10-70, Cl. 108-53.

Murray, Lowell C., to Container Corporation of America. Display carton for flood lamps. 3,539,091, 11-10-70, Cl. 229-39.

Murray Manufacturing Corporation: *See—*
Knecht, George W., 3,505,621.
Kobryner, Herman H., 3,526,813.
Kobryner, Herman H., 3,541,397.

Murray, Max; and Zecca, John J., to Westinghouse Electric Corporation. Prefocused filament-mount structure for sealed-beam type incandescent lamp and method of manufacture.,3,513,347, 5-19-70, Cl. 313-115.

Murray, Myles N., to Industrial Electronic Rubber Company. Diaphragm valve with projections around bleed hole. 3,544,062, 12-1-70, Cl. 251-38.

Murray, Norris N., to Koch, H., & Sons, Inc. Automatic emergency breathing oxygen system for aircraft. 3,521,627, 7-28-70, Cl. 128-142.

Murray Ohio Manufacturing Co., The: *See—*
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Murray, Philip A.; and Geary, Carl H., Jr., to Carrier Corporation. Lubrication system. 3,499,503, 3-10-70, Cl. 184-1.

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Zeitoun, Mohamed A.; McIlhenny, William F.; and Murray, Reece W.,3,493,499.

Murray, Robert H., to Bethlehem Steel Corporation. Bridge plate securing mechanism. 3,521,576, 7-21-70, Cl. 105-458.

Murray, Robert H. Filmed programmed teaching machines and the like. 3,543,417, 12-1-70, Cl. 35-9.

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Murray, Ronald C., to Coors Porcelain Company. Method for manufacturing isostatically pressed articles having openings or inserts therein. 3,499,066, 3-3-70, Cl. 264-56.

Murray, Ronald C., to Coors Porcelain Company. Method for forming indentations in isostaticly pressed articles. 3,502,755, 3-24-70, Cl. 264-56.

Murray, Ronald C., to Coors Porcelain Company. Composite porous-dense ceramic article. 3,505,158, 4-7-70, Cl. 161-110.

Murray, William Alexander, Sr.: *See—*
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Murray, William D., Jr. Marine toilet construction. 3,510,885, 5-12-70, Cl. 4-77.

Murray, William D.; and Tracy, Robert A., to Burroughs Corporation. Serial-entry serial-access memory device. 3,534,340, 10-13-70, Cl. 340-174.

Walker, Gordon Richard; and Murray, William,3,494,292.

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Murtaugh, James L., Jr.: *See—*
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Murty, Dasika R. K.; and Florey, Klaus G., to Squibb, E. R., & Sons, Inc., mesne. Apparatus and method for determining thyroid function. 3,516,794, 6-23-70, Cl. 23-230.

Murvall, Ake Eugen. Arrangement with respect to the decimal register transfer in counter devices. 3,491,611, 1-27-70, Cl. 74-409.

Murvall, Ake Eugen, to ABU Aktiebolag. Line spool braking device for fishing reels. 3,532,296, 10-6-70, Cl. 242-84.5

Murvine, Robert E.: *See—*
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Musashi, Akira: *See—*
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Muscovitch, Joseph A. Adjustable beam lamp. 3,511,985, 5-12-70, Cl. 240-44.1

Muselaers, Johannes H. M.; van der Linde, Wim; Korpel, Hendrik A.; and Van Linden, Jacques, to Stamicarbon, N.V. Installation for spraying a medium. 3,494,560, 2-10-70, Cl. 239-61.

Muser, Carl J.; Melill, Joseph; and Lewis, Joseph C., to North American Rockwell Corporation. Solid state joining method. 3,547,599, 12-15-70, Cl. 29-491.

Muser, Carl J.: *See—*
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Musgrave, John M. Step assembly for camper. 3,492,020, 1-27-70, Cl. 280-166.

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Musgrave, Orly, to Mast-Foos Manufacturing Company, Incorporated. Riding mower. 3,550,364, 12-29-70, Cl. 56-25.4

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Musham, John Robin, to Associated Electrical Industries Limited. Voltage suppression circuit. 3,518,489, 6-30-70, Cl. 317-16.

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Musil, Johann, to Telephon- und Telegraphen-Fabriks-Aktiengesellschaft Kapsch & Soehne. Method of rendering galvanic cells leakproof by encasing them in a jacket of thermoplastic synthetic material. 3,544,386, 12-1-70, Cl. 136-175.

Musil, Vaclav; Brunova, Bohumila; Nemecek, Oldrich; and Muratova, Jitka, to Spofa, United Pharmaceutical Works. 4-Substitued-1,2-diphenyl-3,5-diox-pyrazolidines. 3,519,640, 7-7-70, Cl. 260-310.

Musinski, Donald F.: *See—*
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Muskovac, Nicholas G., to Vectrol, Inc. Time proportional firing circuit. 3,544,766, 12-1-70, Cl. 219-501.

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Musselman, John M.; and Schieman, Richard D., to Standard Oil Company, The. Plant growth stimulant composition and process. 3,551,131, 12-29-70, Cl. 71-82.

Musser, C. Walton, to General Motors Corporation. Method and apparatus for testing bearings. 3,511,079, 5-12-70, Cl. 73-9.

Musser, Harry R.: *See—*
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Mussulman, Charles E. Organ reed pickups with circuitry and lamp-photoresistor arrangement for percussive effects. 3,514,522, 5-26-70, Cl. 84-1.18

Mustain, William G., to General Electric Company. Electronic single-pole, double-throw switch. 3,543,053, 11-24-70, Cl. 307-254.

Mustian, William R., Jr.; Austin, James; and Ellis, John D., to Occidental Research & Engineering Ltd. Production of phosphoric acids. 3,522,833, 8-4-70, Cl. 159-16.

Mutaffis, Thomas D., to GAF Corporation. Negative working electrostatic toners. 3,542,681, 11-24-70, Cl. 252-62.1

Mutaffis, Thomas D., to GAF Corporation. Liquid toners for electrostatic printing. 3,542,682, 11-24-70, Cl. 252-62.1

Mutchnik, Henry; and Mutchnik, Melvin. Bracket mounting for wooden furniture legs. 3,510,096, 5-5-70, Cl. 248-188.

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Muth, Gregor Nikolaus; Muth, Engelbert Michael; and Weschenfelder, Otto, to Schnellpressenfabrik Koenig & Bauer Aktiengesellschaft. Method and apparatus for the production of trimmed and folded copies. 3,544,454, 12-1-70, Cl. 270-21.

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Mutka, Vilho A., to Deere & Company. Mounting for the fender deck of a tractor. 3,525,548, 8-25-70, Cl. 296-35.

Muto, Anthony Falcon, to AMP Incorporated. Electric connector for aluminum foil. 3,504,101, 3-31-70, Cl. 174-94.

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Muto, Sakae; Koga, Akira; Sato, Shigetake; Kiumi, Masumi; Takehisa, Masanori; and Watanabe, Takashi, to Bridgestone Tire Company Limited, and Ouchi Shinko Chemical Industry Company Limited. Method of manufacturing antioxidant for rubber and a rubber composition compounding the antioxidant. 3,509,080, 4-28-70, Cl. 260-3.

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Mutsch, Edward L., to Minnesota Mining and Manufacturing Company. Aromatic fluoroalkyl sulfides. 3,506,718, 4-14-70, Cl. 260-609.

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Mutschler, Edward C.; Terry, David M.; Werner, Walter; and Kahler, Melvin N., to Xerox Corporation. Electrographic recording method and apparatus with inert gaseous discharge ionization and acceleration gaps. 3,495,269, 2-10-70, Cl. 346-74.

Mutschler, Otto. Front end assembly for a fountain pen. 3,521,969, 7-28-70, Cl. 401-225.

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Muttick, Richard P., to Sonotone Corporation. Phonograph pickup cartridge with selectively settable compliance. 3,531,601, 9-29-70, Cl. 179-100.41

Muttick, Richard P.; and Knauert, William F., to Sonotone Corporation. Stereophonic phonograph pickups having a pair of vertically orientated bender-type beam transducers and force changing coupler. 3,527,900, 9-8-70, Cl. 179-100.41

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Muzyczko, Thaddeus M.; Shore, Samuel; and Schulert, Sanford, to Richardson Company, The. Preparation of water soluble polymeric vinyl aromatic sulfonates. 3,551,393, 12-29-70, Cl. 260-79.3

Muzyczko, Thaddeus; Shore, Samuel; and Martin, Jerome A., to Richardson Company, The. Amino-ethylated novolaks as curing agents for epoxy resins. 3,544,517, 12-1-70, Cl. 260-47.

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Myer, Caleb H., to Armstrong Cork Company. Crown cap having a protective skirt. 3,497,098, 2-24-70, Cl. 215-39.

Myer, Jon H., to Hughes Aircraft Company. Selective conversion of solar energy with radiation resistant solar energy converter array. 3,490,950, 1-20-70, Cl. 136-89.

Myer, Robert E., to Bell Telephone Laboratories, Incorporated. Linear wide band level control means and method. 3,492,563, 1-27-70, Cl. 323-58.

Myer, Robert E., to Bell Telephone Laboratories, Incorporated. Class B transistor power amplifier. 3,537,023, 10-27-70, Cl. 330-13.

Myers, Albert F., to Boise Cascade Corporation. Transfer case differential mechanism. 3,505,902, 4-14-70, Cl. 74-650.

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Myers, Clifford E., to Welsh Panel Company. Wood impregnation. 3,551,190, 12-29-70, Cl. 117-116.

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Myers, George H.; and Harter, Franklin C., to Whirlpool Corporation. Electronic spark ignitor control for fuel burner. 3,488,131, 1-6-70, Cl. 431-24.

Myers, Harold Robert, to Kaufman, Larry L., Company. Method and apparatus for covering a load on a pallet. 3,508,375, 4-28-70, Cl. 53-30.

Myers, Harvey Lester. Adjustable fastening device. 3,538,914, 11-10-70, Cl. 128-165.

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Myers, Jack A., to United States of America, Navy. Bomblet. 3,498,218, 3-3-70, Cl. 102-6.

Myers, John G.; and Field, Joseph H., to United States of America, Interior. Alkalized alumina absorbent and method of making same. 3,551,093, 12-29-70, Cl. 23-2.

Myers, John L., to Tasker Industries,. Cathode ray tube magnetic deflection circuit. 3,515,933, 6-2-70, Cl. 315-27.

Myers, John W.; and Doane, Elliott P., to Phillips Petroleum Company. Olefin isomerization process. 3,531,542, 9-29-70, Cl. 260-683.2

Myers, Julian Mostella, to Clapp, O. H., & Co., Inc. Tea harvester. 3,548,576, 12-22-70, Cl. 56-327.

Myers, Lawrence A., to Chore-Time Equipment, Inc. Poultry feeder. 3,511,215, 5-12-70, Cl. 119-53.

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Myers, Malcolm C., to Dover Corporation. Fluid dispensing nozzle. 3,540,496, 11-17-70, Cl. 141-225.

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Myers, Richard A.: *See—*
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Myers, Robert A.; and Powell, Carl G., to International Business Machines Corporation. Multi-path conjugate laser. 3,509,488, 4-28-70, Cl. 331-94.5

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Myers, Stephen A.; and Rigden, Jameson D., to Perkin-Elmer Corporation, The. DC excited gas laser tube with conductive sidewalls. 3,501,714, 3-17-70, Cl. 331-94.5

Myers, Sumner. Timer device. 3,520,124, 7-14-70, Cl. 58-1.

Myers, Thomas E., to Ideal Industries, Inc. Voltage tester employing an oscillator powered by the test voltage. 3,513,393, 5-19-70, Cl. 324-133.

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Myerson, Richard L. Variably releasable ski bindings. 3,528,673, 9-15-70, Cl. 280-11.35

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Myklestad, Nils O. Latch device. 3,516,700, 6-23-70, Cl. 292-49.

Myler, George W.; and Saponara, Domenick, to Caloric Corporation. Gas-fueled self-cleaning oven. 3,530,847, 9-29-70, Cl. 126-21.

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Myles, Michael J.; Kupcikevicius, Vytautas; and Spellman, John P., to Union Carbide Corporation. Constant pressure filling apparatus. 3,545,038, 12-8-70, Cl. 17-49.

Myles, Michael J.; and Spellman, John P., to Union Carbide Corporation. Packaging apparatus. 3,503,180, 3-31-70, Cl. 53-258.

Myles, Michael J.; and Spellman, John P., to Union Carbide Corporation. Apparatus for processing large sausage products. 3,517,606, 6-30-70, Cl. 99-450.

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Myny, Josephus Eduardus, to U.S. Philips Corporation, mesne. Foam-plastic buffer packaging material. 3,531,040, 9-29-70, Cl. 229-14.

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Naarmann, Herbert; and Kastning, Ernst-Guenther, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of stereo block butadiene polymer. 3,489,823, 1-13-70, Cl. 260-879.

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Nabiullin, Faat Khatovich; Buzova, Zoja Mikhailovna; Gertsik, Efim Mikhailovich; Marfin, Boris Vasilyevich; Rabinovich, Vyacheslav Anatolievich; and Koval, Ivan Ivanovich. Method for manufacture of galvanic cells. 3,506,750, 4-14-70, Cl. 264-104.

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Nadelson, Samuel. Endless conveyor. 3,526,207, 9-1-70, Cl. 118-500.

Nader, Donald J. Convertible high chair. 3,516,709, 6-23-70, Cl. 297-153.

Nadherny, Rudolph E., to Illinois Railway Equipment Company. Device for locking a container in position on a floor of a flat car. 3,507,226, 4-21-70, Cl. 105-366.

Nadler, Heinrich; and Gesch, Hilmar, to Continental Gummi-Werke Aktiengesellschaft. Apparatus for building up pneumatic vehicle tires. 3,542,624, 11-24-70, Cl. 156-401.

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Nador, Julius; Magoveny, Harry; and Thomas, Leon E., Jr., to Sigma Instruments, Inc., mesne. Miniaturized high torque, single air gap meter mechanism. 3,497,806, 2-24-70, Cl. 324-150.

Nador, Karoly; Kraiss, Gabor; Gyorgy, Lajos; Molnar, Jeno; Doda, Margit; Galambos, Eva; and Pfeifer, Klara, to Chinoin Gyogyszer es Vegyeszeti Termekek Gyara RT. Certain alkyl and aryl ethers and thio ethers of tropine and derivatives thereof. 3,530,137, 9-22-70, Cl. 260-292.

Nador, Peter, to Northern Electric Company Limited. Method and apparatus for gauging and adjusting multiple contact relays. 3,510,759, 5-5-70, Cl. 324-28.

Naegeli, Werner, to Rieter Machine Works, Ltd. Apparatus and process for winding yarn. 3,490,218, 1-20-70, Cl. 57-34.

Naegeli, Werner, to Pavena A.G. Process for drafting staple fibers. 3,548,460, 12-22-70, Cl. 19-66.

Naegeli, Werner, to Pavena A.G. Process for the preparation of a fiber arrangement or strand composed of staple fibers for undergoing a subsequent high draft. 3,548,462, 12-22-70, Cl. 19-150.

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Naff, John Tom, to Automatic Tire Control Inc. Method of depositing elemental material from a low pressure electrical discharge. 3,491,015, 1-20-70, Cl. 204-298.

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Nagae, Tadashi; and Iwano, Haruhiko, to Fuji Sashin Film Kabushiki Kaisha. Color developing process. 3,495,981, 2-17-70, Cl. 96-55.

Nagae, Tadashi; and Iwano, Haruhiko, to Fuji Shashin Film Kabushiki Kaisha. Color developing process utilizing pyridinium salts. 3,520,689, 7-14-70, Cl. 96-55.

Nagae, Tadashi; and Iwano, Haruhiko, to Fuji Shashin Film Kabushiki Kaisha. Process for controlling dye gradation in color photographic element. 3,520,690, 7-14-70, Cl. 96-55.

Nagae, Tadashi; Iwano, Haruhiko; and Shimamura, Isao, to Fuji Photo Film Co., Ltd. Process for development of photographic silver halide color materials. 3,512,979, 5-19-70, Cl. 96-55.

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Nagata, Nobuyoshi; and Mizuguchi, Ryuzo, to Nippon Paint Co., Ltd. Polyurethane liquid containing compositions. 3,549,583, 12-22-70, Cl. 260-37.

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Nazy, John R.; and Wheeler, Donald H., to General Mills, Inc. Diamines and derivatives. 3,544,495, 12-1-70, Cl. 260-18.

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Neale, Alan Jeffrey; and Rawlings, Terence James, to Monsanto Chemicals Limited. Accelerating vulcanization with benzothiazole-2- sulfinamides. 3,541,060, 11-17-70, Cl. 260-79.5

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Nelson, Alfred M., to Magnavox Company, The. Thermomagnetic recording and copying method and system. 3,512,170, 5-12-70, Cl. 346-74.
Nelson, Alfred M., to Magnavox Company, The. Magneto-optic readout transducer. 3,513,456, 5-19-70, Cl. 340-174.1
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Nelson, Bernhart Walter, to International Telephone and Telegraph Corporation. Comparator using resistor-diode logic. 3,496,539, 2-17-70, Cl. 340-146.2
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Nelson, Carl S.; Armstrong, Kirk R.; and Mikolyczyk, Edward C., to Capitol Records, Inc. Cutting means for a magnetic recording tape rewinding apparatus. 3,495,782, 2-17-70, Cl. 242-56.
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Nelson, Norman A., to ACF Industries, Incorporated. Subsea wellhead valve system and collet connector mechanism therefor. 3,523,579, 8-11-70, Cl. 166-0.6
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Newhouse, Marinus, Jr. Bale-shredding machine. 3,540,506, 11-17-70, Cl. 146-70.1
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Nichols, Gordon W., to GAF Corporation. Movie camera exposure integrator. 3,498,723, 3-3-70, Cl. 356-215.
Nichols, Gordon W., to GAF Corporation. Laser beam scanning film flaw detector. 3,510,664, 5-5-70, Cl. 250-217.
Nichols, Grady B., to United States of America, National Aeronautics and Space Administration. Apparatus for controlling the velocity of an electromechanical drive for interferometers and the like. 3,488,123, 1-6-70, Cl. 356-106.
Nichols, Irvin H. Blade arrangement for earthmoving equipment. 3,520,076, 7-14-70, Cl. 37-141.
Nichols, Irvin H. Retainer pin for earth engaging member. 3,526,049, 9-1-70, Cl. 37-142.
Nichols, Ivan L.; and Dean, Karl C., to United States of America, Interior. Separation of aluminum, calcium, and magnesium from the alkali metals by solvent extraction. 3,514,266, 5-26-70, Cl. 23-312.
Nichols, Joseph; and Oneson, Irving B., to Ethicon, Inc. Purified collagen fibrils. 3,520,402, 7-14-70, Cl. 206-59.
Nichols, Joseph: *See—*
Hanyen, Clyde K.; Nichols, Joseph; and Rich, Ernest J., Jr.,3,518,994.
Nichols, Julian C.: *See—*
Zogran, Raymond N.; Weems, Sterling J.; Estrada, Herbert, Jr.; and Nichols, Julian C.,3,537,910.
Nichols, Larry D.; and Kapustin, Daniel B., to Moleculon Research Corporation. Pattern processing system. 3,551,592, 12-29-70, Cl. 178-6.
Nichols, Lawrence W.; and Lamar, Jesse, to United States of America, Navy. Infrared radiometer employing a plurality of dichroic mirrors to produce a three-color image. 3,508,051, 4-21-70, Cl. 250-65.

Nichols, Leonard. Two-pass indirect seam welder. 3,499,138, 3-3-70, Cl. 219o82.
Nichols, Monte C.: *See—*
Lasko, William R.; and Nichols, Monte C.,3,505,218.
Nichols, Richard A., to Collins Radio Company. Digital controlled variable gain circuit. 3,510,682, 5-5-70, Cl. 307-230.
Nichols, Roy A. Machine for constructing and erecting building structures formed of bricks and the like. 3,503,174, 3-31-70, Cl. 52-749.
Nichols, Roy G. Device for simultaneously advancing intake cam lobes and retarding exhaust cam lobes of an internal combustion engine while the engine is running. 3,516,394, 6-23-70, Cl. 123-90.
Nichols, Theron H.: *See—*
Mackey, Steven A., 3,508,753.
Nichols, Walter B. Building construction. 3,494,083, 2-10-70, Cl. 52-122..
Nichols, Walter B. Wedge assembly. 3,512,325, 5-19-70, Cl. 52-584.
Nichols, Walter B. Prefabricated building. 3,535,834, 10-27-70, Cl. 52-69.
Nichols, Wayne; and Markley, Kenneth G. Back brace. 3,521,623, 7-28-70, Cl. 128-78.
Nichols-Homeshield, Inc.: *See—*
Fox, John H., 3,543,575.
Nicholson, Alan J.: *See—*
Maxwell, Earl B.; Nicholson, Alan J.; and Wetzel, Guy F.,3,490,276.
Nicholson, Carlton T., to Niagara Mohawk Power Corporation. Cable joint having conductive rings for establishing linear longitudinal voltage stresses. 3,499,099, 3-3-70, Cl. 174-73.
Nicholson, Eric Samuel; and Sharma, Vijay Ratna, to Imperial Chemical Industries Limited. Stabilisation of polymers. 3,549,587, 12-22-70, Cl. 260-45.8
Nicholson File Company: *See—*
Hopgood, Robert B.; Green, Ivar; and Knowles, David W., Jr., 3,501,110.
Nicholson, Firl W.; and Rauberts, Gifford E., to Jeffrey Galion Manufacturing Company. Chain in which the side bars are formd with curved bearing surfces. 3,518,892, 7-7-70, Cl. 74-250.
Nicholson, James A.: *See—*
Robinson, Franklin M.; Anderson, Paul S.; and Nicholson, James A.,3,499,906.
Robinson, Franklin M.; Anderson, Paul S.; and Nicholson, James A.,3,513,169.
Robinson, Franklin M.; Anderson, Paul S.; and Nicholson, James A.,3,514,463.
Nicholson, James E.; and Adams, Richard H., to Sanders Associates, Inc. Rain erosion protective device. 3,524,608, 8-18-70, Cl. 244-1.
Nicholson, John B., to Continental Can Company, Inc. Valve for product dispensing container. 3,522,900, 8-4-70, Cl. 220-44.
Nicholson, Kenneth W., to International Harvester Company. Resilient draft sensing device. 3,520,369, 7-14-70, Cl. 172-7.
Nicholson Manufacturing Company: *See—*
Cervenak, Peter J., 3,536,265.
Nicholson, Robert T.: *See—*
Colton, Frank B.; and Nicholson, Robert T.,3,499,891.
Colton, Frank B.; Mikulec, Richard A.; and Nicholson, Robert T.,3,536,703.
Nicita, Domenico; Parmeggiani, Paolo; and Lucioni, Enrico, to Snia Viscosa Societa Nazionale Industria Applicazioni Viscosa S.p.A. Apparatus for localized draft in filaments and yarns. 3,491,418, 1-27-70, Cl. 28-71.3
Nick, Howard H.: *See—*
Bolt, Murray H.; and Nick, Howard H.,3,516,065.
Bolt, Murray H.; and Nick, Howard H.,3,518,450.
Nickel, Emil S.: *See—*
Farley, James L.; Gerecke, Harvey L.; and Nickel, Emil S.,3,512,792.
Nickel, Herbert W., to Smith, A. O., Corporation. Vessel having a foam polyurethane outer layer. 3,521,604, 7-28-70, Cl. 122-13.
Nickel, Horst; and Suckfull, Fritz, to Farbenfabriken Bayer Aktiengesellschaft. Azo dyestuffs containing a triazole group. 3,501,454, 3-17-70, Cl. 260-157.
Nickel, Horst; and Suckfull, Fritz, to Farbenfabriken Bayer Aktiengesellschaft. Mono- and disazo dyestuffs containing a diazine or triazine group. 3,502,644, 3-24-70, Cl. 260-154.
Nickel, Horst; Suckfull, Fritz; Seidel, Bernhard; and Bockly, Erich, to Agfa-Gevaert Aktiengesellschaft. Photographic material for the silver-dye-bleach process. 3,506,450, 4-14-70, Cl. 96-99.
Nickel, Horst; Suckfull, Fritz; Seidel, Bernhard; Bockly, Erich; and Wunderlich, Hermann, to Agfa-Gevaert Aktiengesellschaft. Color photographic material for the silver dye bleach process. 3,533,799, 10-13-70, Cl. 96-99.
Nickel, Paul R.: *See—*
Nickel, Robert T.; and Nickel, Paul R.,3,491,480.
Nickel, Robert T.; and Nickel, Paul R. Vehicle actuated livestock barrier. 3,491,480, 1-27-70, Cl. 49-59.
Nickel, Ronald W. Method of collecting material by means of dump trucks. 3,550,797, 12-29-70, Cl. 214-152.
Nickell, Lawrence Creigh; Fertig, Raymond Baines; and Sessions, Henry T., to Appalachian Electronic Instruments Inc. Yarn inspection apparatus. 3,530,690, 9-29-70, Cl. 66-163.
Nickell, Louis G.; and Tanimoto, Tyrus, to Hawaiian Sugar Planters' Association. Ripening of sugarcane by use of quaternary amines such as chlorocholine chloride. 3,493,361, 2-3-70, Cl. 71-121.
Nickell, Louis G.; and Tanimoto, Tyrus, to Hawaiian Sugar Planters' Association. Use of isochlortetracycline in ripening sugarcane and compositions useful therein. 3,505,056, 4-7-70, Cl. 71-88.
Nickerson, James K.: *See—*
Claybaugh, Billy E.; Compton, Lloyd E.; Nickerson, James K.; and Shmidl, Albert J.,3,502,711.
Nickerson, Richard G.; McAllister, Richard George; and Dickstein, Jack, to Borden, Inc. Process for controlling fabric hardness by impregnating with a latex. 3,547,690, 12-15-70, Cl. 117-139.5
Nickerson, Ronald J., to ILC Industries, Inc. Adjustable headband. 3,513,481, 5-26-70, Cl. 2-3.
Nickl, Julius, to Siemens Aktiengesellschaft. Use of gas etching under vacuum pressure for purifying silicon. 3,506,508, 4-14-70, Cl. 156-17.
Nickl, Julius: *See—*
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Nicklas, James P.; and Stotz, Robert H., to B-R Corporation. Encoder. 3,518,660, 6-30-70, Cl. 340-347.
Nickless, Henry Albert: *See—*
Butterworth, Harold Millman; Nickless, Henry Albert; and Maule-Cole, Louis,3,543,027.
Nicko, Stanley, to Flake Ice Machines, Inc. Tapping pipe unit for beverage containers. 3,490,483, 1-20-70, Cl. 137-212.
Nickola, Anne D. Mounting pedestal for utilities. 3,502,785, 3-24-70, Cl. 174-38.
Nickols, Richard C., Jr., to United Aircraft Corporation. Fuel cell with electrically conductive bonding means. 3,515,593, 6-2-70, Cl. 136-86.
Nicks, Gene E., to Continental Oil Company. Preparation of high molecular weight dialkyl aromatic compounds. 3,538,177, 11-3-70, Cl. 260-672.
Nicks, Gene E.: *See—*
Wotring, Robert W.; Nicks, Gene E.; Wentworth, William A.; and Butler, Claude D.,3,509,225.
Nicks, Peter Francis; and Osmond, Desmond Wilfrid John, to Imperial Chemical Industries Limited. Process of preparing organic emulsions. 3,532,663, 10-6-70, Cl. 260-34.2
Niclas, Giulio Giuseppe, to Ejectoret S.A. Apparatus for filling containers or the like with fluent or flowable material. 3,491,804, 1-27-70, Cl. 141-125.
Niclas, Giulio Giuseppe, to Nico S.R.L. Apparatus for the automatic dosing and filling of fluent media into containers or the like. 3,522,631, 8-4-70, Cl. 18-20.
Niclas, Walter; Menell, Hans; and Johannes, Gunter, to Continental Gummi-Werke Aktiengesellschaft. Tire building machine for building belted tires. 3,532,577, 10-6-70, Cl. 156-394.
Nico S.R.L.: *See—*
Niclas, Giulio Giuseppe, 3,522,631.
Nicodemo, Anthony: *See—*
Kuchar, William; Nicodemo, Anthony; and Pope, Joseph,3,496,573.
Nicodemus, Paul O., to General Electric Company. Method for making thin wall insulated wire. 3,546,014, 12-8-70, Cl. 117-218.
Nicol, Alan: *See—*
Oplinger, Howard L.; and Nicol, Alan,3,501,804.
Nicol, James B., to Drysdale & Company Limited. Plants for the treatment of sewage. 3,497,066, 2-24-70, Cl. 210-195.
Nicol, James B., to Drysdale & Company Limited. Apparatus for the treatment of sewage and like industrial waste. 3,522,881, 8-4-70, Cl. 210-127.
Nicol, James B., to Drysdale & Company Limited. Apparatus for the treatment of sewage and like industrial waste. 3,524,547, 8-18-70, Cl. 210-134.
Nicola, William H.: *See—*
Allen, Scott E.; and Nicola, William H.,3,495,053.
Nicolai, Van O. Claddings for lasers. 3,508,165, 4-21-70, Cl. 331-94.5
Nicolaou, Constantinos Theodore: *See—*
Luxem, Allan Harold; and Nicolaou, Constantinos Theodore,3,523,223.
Nicolas, Jesus, to Du Pont de Nemours, E. I., and Company. Process for dispersing partially miscible polymers in melt spinnable fiber-forming polymers. 3,518,337, 6-30-70, Cl. 264-176.
Nicolas, Maurice: *See—*
Jurion, Roland; and Nicolas, Maurice,3,501,055.
Nicolas, Pierre J.: *See—*
Milot, Michel; and Nicolas, Pierre J.,3,547,451.
Nicolau, Ioan; and Hanciulescu, Valentin Eugen, to Institutul de Cercetari Si Proiectari Pentru Industria Extractiva de Titei Si Gaze. Apparatus for damping pulsating pressures in pressure gauges. 3,540,285, 11-17-70, Cl. 73-392.
Nicolau, Ion, to Institutul de Cercetare Si Prorectare Technologia Pentru Industria Extractive de Titei. Weight indicator and drilling cable anchor. 3,538,764, 11-10-70, Cl. 73-143.

Nicolaus, Norbert, to Homann-Maytag GmbH. Cooking equipment. 3,525,298, 8-25-70, Cl. 99-334.

Nicolay, Karl, to Durkoppwerke GmbH. Buttonhole sewing machine with improved stopping mechanism. 3,499,404, 3-10-70, Cl. 112-67.

Nicolay, Klaus: *See—*
Wagner, Karl; Nicolay, Klaus; Fliesser, Engelbert; Landbrecht, Franz; and Putscher, Johann,3,517,595.

Nicolay, Theodore: *See—*
Traner, George L.; and Nicolay, Theodore,3,497,057.

Nicoll, Frederick Hermes, to RCA Corporation. Thermoplastic deformation imaging process. 3,525,613, 8-25-70, Cl. 96-1.1

Nicollian, Edward H.: *See—*
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Nicolson, Garth F.: *See—*
Dickmann, John L.; and Nicolson, Garth F.,3,505,913.
Dickmann, John L.; and Nicolson, Garth F.,3,550,485.
Ham, John E.; and Nicolson, Garth F.,3,518,903.

Nicora, Carlo: *See—*
Borsini, Giancarlo; and Nicora, Carlo,3,502,630.

Nicora, Carlo; Borsini, Giancarlo; Confalonieri, Giovanni; and Cevidalli, Guidobaldo, to Montecatini Edison S.p.A. Process and catalyst system for the low-temperature polymerization of vinyl monomers containing vinyl chloride. 3,525,727, 8-25-70, Cl. 260-92.8

Nicoski, Thomas J., to Trane Company, The. Heat pump apparatus. 3,545,224, 12-8-70, Cl. 62-262.

Nicou, Parasko: *See—*
Lefort, Marcel; and Nicou, Parasko,3,498,945.
Lefort, Marcel; and Nicou, Parasko,3,544,513.

Nicpon, John E., to Appleton Electric Company. Rewind control mechanism with slotted cam and toggle-activated pawl. 3,490,715, 1-20-70, Cl. 242-107.7

Nideroest, Ernst: *See—*
Fisch, Willy; Ernst, Otto; and Nideroest, Ernst,3,511,922.

Nidola, Antonio E.: *See—*
Bianchi, Giuseppe; Gallone, Patrizio; and Nidola, Antonio E.,3,491,014.

Niebel, Benjamin W.; Sover, Richard N.; and Winner, Forney D. Surgical strip stitch. 3,487,836, 1-6-70, Cl. 128-335.

Niebel, Ernst: *See—*
Schafer, Heinz; Hauske, Gerhard; and Niebel, Ernst,3,509,801.

Niebergall, Louis F., to Tenneco Inc., mesne. Filter evaluation equipment. 3,505,876, 4-14-70, Cl. 73-432.

Niebergall, Louis F.; and McLaren, James C., to Tenneco Inc., mesne. Filter including high flow molded element. 3,504,800, 4-7-70, Cl. 210-317.

Niebylski, Leonard M., to Ethyl Corporation. Catalytic decomposition of silanes. 3,493,402, 2-3-70, Cl. 106-44.

Niebylski, Leonard M., to Ethyl Corporation. Lubricant compositions. 3,505,222, 4-7-70, Cl. 252-17.

Niebylski, Leonard M., to Ethyl Corporation. Lubricant compositions. 3,505,223, 4-7-70, Cl. 252-25.

Niebylski, Leonard M., to Ethyl Corporation. Building block. 3,508,367, 4-28-70, Cl. 52-316.

Niechwiadowicz, Michal: *See—*
Finestone, Arnold B.; Niechwiadowicz, Michal; and Crall, Hugh C.,3,505,253.

Niedek, Edward J. Speed control system for motor vehicles. 3,526,154, 9-1-70, Cl. 74-526.

Niedereder, Martin, to Siemens Aktiengesellschaft. Circuit arrangement for the digital measurement of electrical magnitudes in a logarithmic scale. 3,543,152, 11-24-70, Cl. 324-99.

Niederer, Kurt W.: *See—*
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Bell, Charles C.; Kent, Edward L.; and Niederer, Kurt W.,3,539,878.

Niederer, Otto C. Egg carton closing mechanism. 3,505,782, 4-14-70, Cl. 53-376.

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Niedergesass, Dieter, to International Standard Electric Corporation. Control circuit for multistage crosspoint network. 3,515,808, 6-2-70, Cl. 179-18.

Niederprum, Hans; and Simmler, Walter, to Farbenfabriken Bayer Aktiengesellschaft. Method of preparing branched methyl polysiloxane- polyglycol ether condensates and products thereof. 3,509,192, 4-28-70, Cl. 260-448.8

Niederprum, Hans; and Simmler, Walter, to Farbenfabriken Bayer Aktiengesellschaft. Mercaptomethyl-substituted organopolysiloxanes and process thereof. 3,509,193, 4-28-70, Cl. 260-448.2

Niederprum, Hans: *See—*
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Niederrheinische Maschinenfabrik Becker & van Hullen: *See—*
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Niederrheinsche Maschinenfabrik Becker & Van Hullen: *See—*
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Niederstrasser, Wilfried; Greiner, Emil; Krafft, Albet; and Kusenberg, Felix, to Thyssen Roehrenwerke Aktiengesellschaft. Method of producing tubes. 3,497,943, 3-3-70, Cl. 29-477.

Niedleman, Saul L.; and Levine, Seymour D., to Squibb, E. R., & Sons, Inc. Process for halogenating steroids. 3,528,886, 9-15-70, Cl. 195-51.

Niedner, Peter; Diez, Gerhard; and Thubeauville, Heinz. Device for mixing gases, liquids or finely grained solids with a carrier gas and for the manufacture of reaction products. 3,495,949, 2-17-70, Cl. 23-284.

Niedzielski, Albert. Photoelectric headlight switch responsive to ambient sight. 3,538,336, 11-3-70, Cl. 250-214.

Niedzielski, George: *See—*
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Niegisch, Walter D., to Union Carbide Corporation. Surface crystallization of poly(2,2,4,4- tetramethylcyclobutanediol-1,3) carbonates by solvent vapor. 3,541,200, 11-17-70, Cl. 264-343.

Niegisch, Walter D., to Union Carbide Corporation. Surface crystallization of poly (2,2,4,4-tetra- methylcyclobutanediol-1,3) carbonates by organic solvent/organic non-solvent liquid solutions. 3,546,331, 12-8-70, Cl. 264-343.

Niegisch, Walter D.; and Loeb, William E., to Union Carbide Corporation. Polymerization process and product thereof. 3,509,075, 4-28-70, Cl. 260-2.

Nieglos, Thomas T.; and Cybulsky, Kenneth J., to Becton, Dickinson and Company. Micropipette holder. 3,525,264, 8-25-70, Cl. 73-425.6

Niehaus, Alfred. Scissors, especially for hairdressers and barbers. 3,494,030, 2-10-70, Cl. 30-256.

Niehaus, Clemens: *See—*
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Niehaus, Wolfgang: *See—*
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Niehenke, Joachim, to Sinram & Wendt. Apparatus for ironing articles of apparel. 3,491,469, 1-27-70, Cl. 38-71.

Niehoff, C. E., & Co.: *See—*
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Niehoff, Walter H., II: *See—*
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Niel, Adam P., to McMurray, George F. Tool for installing drapery pinhooks. 3,546,981, 12-15-70, Cl. 81-3.

Nield, Brian: *See—*
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Nield, Eric: *See—*
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Nield, Gerald L., to Continental Oil Company. Barium-containing dispersion. 3,525,599, 8-25-70, Cl. 44-51.

Nielsen, Alfred Thygesen. Drying apparatus, particularly for green crops. 3,516,172, 6-23-70, Cl. 34-136.

Nielsen, Alfred Thygesen. Apparatus for briquetting loose, fibrous, or tangled material, particularly dried green crops. 3,516,351, 6-23-70, Cl. 100-139.

Nielsen, Asger T., to Ametek, Inc., mesne. Digitally controlled generation of a trace. 3,544,835, 12-1-70, Cl. 315-22.

Nielsen, Boerge Aagaard; and Stranddorf, Soren Peter. Instrument for measuring nonlinearity of electrical components with a selective harmonic voltage measuring means. 3,493,852, 2-3-70, Cl. 324-57.

Nielsen, Borge Aagaard; and Jensen, Ole Jorgen, to Radiometer A/S. Electrode system for electro-chemical measurements in solutions. 3,505,195, 4-7-70, Cl. 204-195.

Nielsen, Borge Simon. Apparatus for manufacturing offset printing plates by the method of diffusion. 3,495,905, 2-17-70, Cl. 355-91.

Nielsen, Borge Simon. Feed mechanism for a developing apparatus. 3,534,674, 10-20-70, Cl. 95-94.

Nielsen, David B.: *See—*
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Nielsen, Donald R.: *See—*
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Nielsen, Donald R., to PPG Industries, Inc. Coated perphthalic acid and method of making same. 3,494,786, 2-10-70, Cl. 117-100.

Nielsen, Donald R., to PPG Industries, Inc. Alkanesulfonic acid preparation. 3,509,206, 4-28-70, Cl. 260-502.

Nielsen, Edwin A., to Ideal Toy Corporation. Multiple speed toy vehicle. 3,546,809, 12-15-70, Cl. 46-206.

Nielsen, Einer Dale, to Signetics Corporation. DC coupled amplifier with automatic gain control. 3,491,306, 1-20-70, Cl. 330-29.

Nielsen, Erhard D., to General Motors Corporation. Valve rotator. 3,534,620, 10-20-70, Cl. 74-88.

Nielsen, Erik J.; and Schubring, Allin W., to Square D Company. Convertible contact structure for an electromagnetically operated switch. 3,505,625, 4-7-70, Cl. 335-132.

Nielsen, Erik, to Fyens Saekkekompagni A/S. Device for control and prevention of coast erosion. 3,538,711, 11-10-70, Cl. 61-38.

Nielsen, Glen F.; Rex, Donald K.; Schopp, Robert E.; and Wilson, Lawrence A., to International Business Machines Corporation. Record card processing machine. 3,519,801, 7-7-70, Cl. 235-61.6

Nielsen, Gordon A.; and Goldsmith, Marji M., to North American Rockwell Corporation. Method of improving adhesion of copper-epoxy glass laminates. 3,536,546, 10-27-70, Cl. 156-3.

Nielsen, H., & Son, Maskinfabrik A/S: *See—*
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Nielsen, Hans B., to Microdot, Inc., mesne. Push-pull cable assembly. 3,528,312, 9-15-70, Cl. 74-501.

Nielsen Hardware Corporation, The: *See—*
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Swanson, Gunnar E., 3,534,992.

Nielsen, Helmar Trost; and Hansen, Knud Aage, to Danfoss A/S. Packed stem valve. 3,490,735, 1-20-70, Cl. 251-214.

Nielsen, Helmer B. Coin dispensing device. 3,496,948, 2-24-70, Cl. 133-5.

Nielsen, Herman; and Valliant, Stephen S., to Drum Fire, Inc. Lighted fireplace and fire noise simultator. 3,526,984, 9-8-70, Cl. 40-106.52

Nielsen, Jacob August, to Crisplant A/S. Feeder devices. 3,523,618, 8-11-70, Cl. 214-11.

Nielsen, Jens C. Camera telescope apparatus for guns. 3,545,356, 12-8-70, Cl. 95-12.

Nielsen, John Henning Schiott, to Pharma-Plast A/S. Colostomy appliance. 3,528,420, 9-15-70, Cl. 128-283.

Nielsen, John M.: *See—*
Nielsen, Knud, Jr.; and Nielsen, John M.,3,511,736.

Nielsen, Jorgen Louis, to General Dynamics Corporation. Ternary logic system adapted for antenna tuning. 3,496,493, 2-17-70, Cl. 333-17.

Nielsen, Karl Georg. Potato machine, particularly a potato peeling machine. 3,496,976, 2-24-70, Cl. 146-50.

Nielsen, Knud, Company, Inc.: *See—*
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Nielsen, Knud, Jr.; and Nielsen, John M., to Nielsen, Knud, Company, Inc. Reinforced polyurethane wreath form. 3,511,736, 5-12-70, Cl. 161-15.

Nielsen, Milton R.: *See—*
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Nielsen, Niels C., to National Union Electric Corporation. Thermally activated ammonia vapor battery. 3,510,357, 5-5-70, Cl. 136-86.

Nielsen, Norman H,: *See—*
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Nielsen, Otto S. Pool table trough with finger receiving holes. 3,495,825, 2-17-70, Cl. 273-11.

Nielsen, Paul H.: *See—*
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Nielsen, Ralph I.: *See—*
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Nielsen, Robert N., Jr., to American Nucleonics Corporation. Locking mechanism and telescoping assembly. 3,515,418, 6-2-70, Cl. 287-58.

Nielsen, Roger T.; and Wheelock, Richard R., to Ametek, Inc., mesne. Circuit. 3,537,098, 10-27-70, Cl. 340-324.

Nielson, Carl C.: *See—*
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Nielson, Thomas L.: *See—*
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Niemand Bros. Inc.: *See—*
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Niemann, George W., to Texas Instruments, Incorporated. Logic gate circuit having complementary output drive. 3,506,846, 4-14-70, Cl. 307-215.

Niemann, Helmut; and Bardenhagen, Dietrich, to Hauni-Werke Korber & Co., K.G. Cutting mechanism or tobacco or the like. 3,518,911, 7-7-70, Cl. 83-338.

Niemann, James E.: *See—*
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Niemeyer, Willy, to Windmoller & Holscher. Bag or sack. 3,504,845, 4-7-70, Cl. 229-54.

Niemeyer, Willy, to Windmoller & Holscher. Apparatus for singling stacked tube sections of paper or plastics material sheeting. 3,521,879, 7-28-70, Cl. 271-27.

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Nienhuis, Willem Jan, to Nu-Way Heating Plants Limited. Fluid fuel burner control systems. 3,542,060, 11-24-70, Cl. 137-487.5

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Niven, Francis J., Jr., to Dresser industries, Inc. Signal correction system for well logging instrument having short and long-spaced radio- activity detectors and a bore hole caliper. 3,538,329, 11-3-70, Cl. 250-83.3
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Niwa, Koichi: *See—*
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Niwa, Ryohei, 1/2 to Kabushiki Kaisha Kurimoto Tekko Sho (Kurimoto Iron Works, Ltd.), and Kabushiki Kaisha Kumahira Susaki Sho, (Kumahira Safe Co., Inc.). Ferrous alloy containing aluminum chromium and manganese having an embedded core. 3,535,095, 10-20-70, Cl. 29-191.6
Niwa, Takashi. Automobile screen filter. 3,489,455, 1-13-70, Cl. 296-97.
Niwa, Takashi. Blind. 3,499,477, 3-10-70, Cl. 160-166.
Niwa, Takazumi: *See—*
Suzukawa, Yuichi; Kono, Hisashi; Terai, Kenji; and Niwa, Takazumi,3,551,513.
Nix, Frank Arnold, to Vereinigte Flugtechnische Werke Gesellschaft mit beschrankter Haftung fruher 'Weser' Flugzeughau/Focke-Wulf/Heinkel-Flugzeubau. Variable lever transmission for actuating the control surfaces of air and water vehicles. 3,507,166, 4-21-70, Cl. 74-522.
Nix, George Francis: *See—*
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Nix, Hans; and Steingroever, Erich. Method of making a magnetic gauge for measuring thickness of non-magnetic layers on ferromagnetic supports. 3,521,160, 7-21-70, Cl. 324-34.
Nix, Vernon G., to Sherwin-Williams Company, The. Universal color base for coating compositions. 3,497,374, 2-24-70, Cl. 106-308.
Nixdorf, Hans-Jurgen: *See—*
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Nixen, David; and Phillips, Alvin B., to North American Rockwell Corporation. Flat electronic package assembly. 3,550,766, 12-29-70, Cl. 206-46.
Nixon, Arthur William; and Thompson, Keith Stanley, to Chance Brothers Limited. Cutting glass. 3,537,344, 11-3-70, Cl. 83-7.
Nixon, Brian George, to Weighload Limited. Safe load indicators for jib cranes. 3,490,015, 1-13-70, Cl. 340-267.
Nixon, Brian; and Phillips, Leslie Nathan, to National Research Development Corporation. Synthetic cross linked polymers. 3,518,228, 6-30-70, Cl. 260-47.
Nixon, Donald R., to Westinghouse Electric Corporation. Controlled clearance self-aligning bearing. 3,542,441, 11-24-70, Cl. 308-73.
Nixon, Earl Hollis; and Wheeler, John Watson,, to Western Electric Company, Incorporated. Circuit for determining when a sweep frequency is substantially equal to a standard frequency. 3,515,996, 6-2-70, Cl. 328-133.
Nixon, Grover C. Portable fruit picking apparatus. 3,543,492, 12-1-70, Cl. 56-328.
Nixon, John I.: *See—*
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Nixon, Norman G., to Swedlow Inc. Expandable electrical conductor and method of making the same. 3,488,431, 1-6-70, Cl. 174-70.
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Nixon, William Charles. Electron microscope having two separate specimen stages. 3,509,335, 4-28-70, Cl. 250-49.5
Nja, Olav, to Kvernalands Fabrikk A/S. Agricultural implement. 3,490,543, 1-20-70, Cl. 172-643.
Njo, Hong H., to Nederlandse Organisatie voor Toegepast-Natuurwet enschappelijk Onderzoek ten behoeve van Nijverheid Handel en Verkeer. False-twist rubbing device. 3,495,391, 2-17-70, Cl. 57-77.42
Nkayama, Takeshi: *See—*
Yatabe, Hiroshi; Takei, Takaji; Oshima, Keiji; Hikita, Masatoshi; Kanda, Shigeru; Sato, Yasuhiro; Nkayama, Takeshi; and Nakata, Tetsuya,3,550,269.
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Noack, Christian, to VEB Kombinat Fortschritt. Vehicular chassis movable in two orthogonal directions. 3,490,555, 1-20-70, Cl. 180-79.2
Noack, Erich: *See—*
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Noack, Klaus, to American Cyanamid Company. High pressure optical cell for fluids. 3,545,872, 12-8-70, Cl. 356-246.
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Noakes, Thomas E.; and McRae, John E., to American Standard, Inc. Pilot operated valve. 3,512,749, 5-19-70, Cl. 251-30.
Nobach, Edward J., to Motor Wheel Corporation. Vehicle wheel. 3,506,311, 4-14-70, Cl. 301-63.
Nobbs, Vestal L. Girdle. 3,545,446, 12-8-70, Cl. 128-522.
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Nobes, William Douglas, to Caldwell Manufacturing Company, The. Takeout apparatus for aluminum window sash. 3,498,000, 3-3-70, Cl. 49-446.
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Noble, Allen T. Article relocating systems. 3,550,790, 12-29-70, Cl. 214-1.
Noble, Bruce Thomas, to British Hovercraft Corporation Limited. Air cushion supported platforms. 3,513,935, 5-26-70, Cl. 180-124.
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Noble, Gardiner A., to Chrysler Corporation. Pulsed eddy current apparatus for non-destructive testing of resistance type welds. 3,526,829, 9-1-70, Cl. 324-40.
Noble, Gardiner A.; and Le Blanc, Roland J., to Chrysler Corporation. Resistance welder monitor circuit. 3,509,311, 4-28-70, Cl. 219-109.
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Noble, Maynard G.; and Brower, James R., to General Electric Company. Flame retardant compositions. 3,514,424, 5-26-70, Cl. 260-37.
Noble, Milton L., to General Electric Company. Immersed fiber optics structure. 3,510,195, 5-5-70, Cl. 350-96.
Noble, Neil M. Combination handbag and make-up kit. 3,537,552, 11-3-70, Cl. 190-51.
Noble, Paul Hodgson, to Fellows Gear Shaper Company, The. Electrohydraulic servo control. 3,509,600, 5-5-70, Cl. 18-30.
Noble, Theo; Scriba, Gottfried; Konig, Theodor; and Holzrichter, Hermann, to Farbenfabriken Bayer Aktiengesellschaft. Method of producing porous strands from a coagulated rubber latex. 3,498,935, 3-3-70, Cl. 260-2.5
Noble, William A., deceased (by Noble, Delores; administratrix). Projection apparatus for opaque objects. 3,512,883, 5-19-70, Cl. 353-64.
Noble, William A., deceased (by Noble, Dolores E.; administratrix). Beehive push toy. 3,523,385, 8-11-70, Cl. 46-43.
Noble, William A. Vertical and horizontal axes roundabout. 3,498,602, 3-3-70, Cl. 272-30.
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Nobs, Horst, to Ciba Limited. Process for the manufacture of optically brightened shaped products from regenerated cellulose. 3,508,942, 4-28-70, Cl. 106-165.
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Noda, Kazuo; Nagosi, Kazuo; and Fukushima, Osamu, to Kurashiki Rayon Co., Ltd. Method of manufacturing a supple, vapor- and moisture permeable sheet material. 3,507,675, 4-21-70, Cl. 117-11.
Noda, Koji, to Minolta Camera Kabushiki Kaisha. Copying machine. 3,528,739, 9-15-70, Cl. 355-109.
Noda, Koji; and Hashimoto, Masaru, to Minolta Camera Kabushiki Kaisha. Copying machine pack holder. 3,499,645, 3-10-70, Cl. 271-61.
Noda, Masajiro; Shirasawa, Kiyoshi; Nishino, Shizuo; and Takekoshi, Shoji, to Meisei Chemical Works, Ltd. Dyeing orlon type acrylic fibers. 3,493,981, 2-10-70, Cl. 8-172.
Noddings, Charles R.; and Gates, Ronald G., to Dow Chemical Company, The. Basic precipitation with nickel phosphate catalyst. 3,501,549, 3-17-70, Cl. 260-680.
Nodfelt, Nils Ingvar. Connection device. 3,513,436, 5-19-70, Cl. 339-90.
Noe, George E., to Owens-Illinois, Inc. Glass stirring apparatus. 3,505,053, 4-7-70, Cl. 65-178.
Noe, George E., to Owens-Illinois, Inc. Glass feeding stirrer. 3,508,901, 4-28-70, Cl. 65-180.
Noe, Harold C., Jr.; and Stanford, James R., to Nalco Chemical Company. Waterflood process. 3,532,167, 10-6-70, Cl. 166-275.
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Noel, Leon L. Tongs. 3,521,923, 7-28-70, Cl. 294-33.
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Noell, Godwin L.; and Moorcroft, David L., to Chandler Evans Inc. Gear pump with separating force distributing elements. 3,498,232, 3-3-70, Cl. 103-126.
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Nogier, Paul; Nogier, Louis; and Nogier, Michel. Hot and cold water mixing tape. 3,519,017, 7-7-70, Cl. 137-625.4
Nogradi, Laszlo, to Csepeli Kerekpar es Varrogepgyar. Connecting joint for turning off toe clips, especially for collapsible bicycles. 3,541,884, 11-24-70, Cl. 74-594.7
Noguchi, Akio, to Mitsubishi Jukogyo Kabushiki Kaisha. Apparatus for balancing a headstock and a saddle in machine tools. 3,546,979, 12-15-70, Cl. 77-36.
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Noguchi, Masaaki; and Sumiyoshi, Masaharu. Toyota Jidosha Kogyo Kabushiki Kaisha Transmission. 3,533,308, 10-13-70, Cl. 74-756.
Noguchi, Michihiro, to Konica Camera Corporation. Automatic parallax indicating means for twin lens reflex cameras with interchangeable objectives. 3,540,366, 11-17-70, Cl. 95-44.
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Noguchi, Tadaatsu, to Mitsui Shipbuilding & Engineering Co., Ltd. Device for extending a drydock. 3,527,058, 9-8-70, Cl. 61-64.
Noguchi, Teiichi; Onozato, Kimishige; Inowaki, Ikuji; and Takahashi, Toshio, to Eisai Kabushiki Kaisha. Method for inspecting liquids for detection of foreign solid matters. 3,528,544, 9-15-70, Cl. 209-73.
Noguchi, Toshio; Furuhashi, Masao; Igarashi, Bing; Yamada, Kosaku; Aotsuka, Noriyoshi; and Omori, Mamoru, to Showa Denko Kabushiki Kaisha, and Kyusku Oil Co., Ltd. Process for producing high grade petroleum coke. 3,547,804, 12-15-70, Cl. 208-46.
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Nohl, Egon A. Method of and apparatus for applying to and withdrawing liquid cleaning and treating means from textile floor covering especially carpeting. 3,530,517, 9-29-70, Cl. 8-158.
Nohse, Walter; and Fischer, Gunter, to Lancy Laboratories, Inc. Beneficial after-treatment of workpieces. 3,537,896, 11-3-70, Cl. 134-13.
Noiles, Douglas G.; Szentkuti, Charles; and Swenson, Alan F, to Ivanhoe Research Corporation, mesne. Thread discontinuity and defect detection apparatus. 3,514,615, 5-26-70, Cl. 250-219.
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Nolan, Clyde E., Jr.; and Crain, Robert L., to Gray Tool Company. Riser drilling system with controlled deflection gimbal joints. 3,523,578, 8-11-70, Cl. 166-0.5
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Nolan, George J.; Hogan, Robert J.; and Farha, Floyd, Jr., to Phillips Petroleum Company. Dehydrogenation. 3,501,547, 3-17-70, Cl. 260-680.
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Nolan, Roger William; and Wiley, David, to Lucas, Joseph, (Industries) Limited. Battery charging systems for road vehicles. 3,543,126, 11-24-70, Cl. 320-39.
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Noland, Wayne B., to Woodford Manufacturing Company. Hydrant with compressed air drain means. 3,534,762, 10-20-70, Cl. 137-209.
Nole, Dominick A.; and Moss, Vladimir, to Aerojet-General Corporation. Battery employing lithium-sulphur electrodes with non-aqueous electrolyte. 3,532,543, 10-6-70, Cl. 136-6.
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Nolte, Claude B.; and Younger, George F., to Kingmann-White, Inc. Low friction rotary shaft bearing seal. 3,495,842, 2-17-70, Cl. 277-81.
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Nolting, Jerry L., to Texaco Inc. Method and apparatus for an ignition timing indicator. 3,548,300, 12-15-70, Cl. 324-15.
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Nomarski, Georges; and Roblin, Gerard, to Etablissement Public: Centre National de la Recherche Scientifique. Vibrating slit photoelectric location device. 3,525,873, 8-25-70, Cl. 250-235.
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Nomura, Susumu, to Shibaura Kyodo Kogyo Kabushiki Kaisha. Rolling mill control system. 3,492,845, 2-3-70, Cl. 72-8.
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Norcross, Gilbert F.; Birdsong, Fred; Wimbs, Martin L.; and Beers, Homer B., to Blue Bell, Inc. Apparatus and method for spreading flexible sheet material. 3,523,473, 8-11-70, Cl. 83-18.
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Nordblom, George F.; and Bodamer, George W., to ESB Incorporated, mesne. Apparatus for producing flakes of nickel. 3,489,666, 1-13-70, Cl. 204-208.

Nordby, Ola. Convertible transport vehicle. 3,501,165, 3-17-70, Cl. 280-43.23

Nordebo, Knut Assar. Alternating current generator without slip rings and brushes. 3,518,473, 6-30-70, Cl. 310-168.

Norden, Alexander R., to Empire Switchboard Co., Inc. High current electric switch with arc chute interlocked with movable contact, and spring driving means. 3,496,319, 2-17-70, Cl. 200-146.

Norden, Alexander R. Electrical connectors. 3,512,117, 5-12-70, Cl. 339-40.

Norden, Alexander R., to Slater Electric Inc. Electrical snap switch. 3,522,396, 7-28-70, Cl. 200-67.

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Nordholm, Lloyd P., 50% to Florance, Douglas A. Automatic function selecting and scale shifting volt-ohmmeter. 3,536,998, 10-27-70, Cl. 324-62.

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Nordstrom, Knut Lennart. Motor vehicle speed display device. 3,534,705, 10-20-70, Cl. 116-116.

Nordt, Gunter Oskar, to Schroeder, H., & Co. Method and device for the oscillation-free operation of a rotary pump. 3,517,687, 6-30-70, Cl. 137-117.

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Noren, Tore H. Sectional oval-shaped table with side walls and U-shaped tongues interconnecting adjacent sections. 3,511,192, 5-12-70, Cl. 108-64.

Noren, Tore H. Dolly conveyor for a dishwasher. 3,538,999, 11-10-70, Cl. 198-181.

Noren, Tore H. Endless conveyor for a dishwasher with links interconnecting adjacent dollies. 3,550,755, 12-29-70, Cl. 198-181.

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Norfleet, John H. Scarifier for use in removing wallpaper or the like. 3,514,854, 6-2-70, Cl. 30-292.

Norgiel, Leo I. Ice skate. 3,537,716, 11-3-70, Cl. 280-11.3

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Norman, Don A.; Wilkerson, Lowell W.; and Matheny, William G., to United States of America, mesne. Audio visual instructional apparatus. 3,508,346, 4-28-70, Cl. 35-12.

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Norman, George R. Garter. 3,501,774, 3-24-70, Cl. 2-321.

Norman, Harry H., 1/2 to Baliski, Stephen. Spring forming apparatus and process. 3,541,828, 11-24-70, Cl. 72-140.

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Norman, Neville Marshall; and Morley, Derek, said Norman assor. to Cleaver-Hume International Limited. Safety belts. 3,512,830, 5-19-70, Cl. 297-250.

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Norman, Robert J.; and Budniak, Mitchell S., to Powers Regulator Company. Code addressing system for pneumatic carrier or the like. 3,547,374, 12-15-70, Cl. 243-38.

Norman, Roy E.; and Speas, Rex H., to United States of America, Atomic Energy Commission. Method of making porous metal carbide agglomerates. 3,536,793, 10-27-70, Cl. 264-0.5

Norman, Roy H., to Ampex Corporation. Current pulse shaper including a storage means having a charging path and a plurality of dis- charging paths of differing time constants. 3,509,442, 4-28-70, Cl. 320-1.

Norman, Rufus. Portable-convertible cane, seat and gunrest. 3,544,051, 12-1-70, Cl. 248-155.

Normand, Gerard; and Boca, Michel, to Societe Francaise d'Agrafage Industriel par abjeviation Sofragraf. Fastener applicator. 3,516,144, 6-23-70, Cl. 29-243.57

Normant, Henri; and Normant, Jean Francois, to Rhone-Poulenc S.A. Process for the preparation of epoxides. 3,506,690, 4-14-70, Cl. 260-348.

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Norsworthy, Keith H., to Boeing Company, The. Digital shift register filter with continuing frequency-fold sampling and time shared sub-band filtering. 3,531,720, 9-29-70, Cl. 324-77.

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North American Aviation, Inc.: *See—*
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Nussbaum, Otto J. Refrigeration system for widely varying ambient conditions. 3,529,432, 9-22-70, Cl. 62-196.

Nussbaumer, Manfred, to Micafil A.-G. Laying device for commutator contact loops on automatic armature winding machines for universal motors. 3,513,528, 5-26-70, Cl. 29-205.

Nussel, Billy A.: *See—*
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Nusz, Woodrow C. Friction gearing drive means for a wire winding power takeoff attachment. 3,530,729, 9-29-70, Cl. 74-15.4

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Nute, Ernest B., Jr.; Ollinger, James C.; and Thomas, Ronald R., to Armstrong Cork Company. Support means for a suspended ceiling structure. 3,511,463, 5-12-70, Cl. 248-343.

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Nutron Electronics Company: *See—*
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Nutt, Ronald, to United States of America, Atomic Energy Commission. Digital time intervalometer with analogue vernier timing. 3,541,448, 11-17-70, Cl. 324-186.

Nutt, Thomas O., Jr. Automotive tow-bar. 3,501,169, 3-17-70, Cl. 280-491.

Nuttall, Ben E. Tie hanger and storage device. 3,537,625, 11-3-70, Cl. 223-85.

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Nuttall, Lloyd. Adhesive attachment for neckties. 3,500,476, 3-17-70, Cl. 2-157.

Nutten, Warren D., to Tillotson Manufacturing Company, The. Priming device for internal combustion engines. 3,494,343, 2-10-70, Cl. 123-187.5

Nutter, Dale E. Partitioned valve tray. 3,530,879, 9-29-70, Cl. 137-512.1

Nutter, Geoffrey, to Ferranti, Limited. Computer systems. 3,543,245, 11-24-70, Cl. 340-172.5

Nutter, Norman E., to General Electric Company. Emergency governor exerciser. 3,508,443, 4-28-70, Cl. 73-509.

Nutter, Raymond W.; and Sitter, Frederick M., to Van-Air Incorporated. Air filter. 3,505,794, 4-14-70, Cl. 55-487.

Nutter, Walter; Shaw, Jack; and Judson, Brian, to T.M.M. (Research) Limited. Means for stripping textile carding flats. 3,529,326, 9-22-70, Cl. 19-109.

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Nutzel, Karl; Hoehne, Klaus; and Heine, Diez, to Farbenfabriken Bayer Aktiengesellschaft. Chlorinated copolymer of toluene and a polydiene. 3,525,730, 8-25-70, Cl. 260-94.7

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Oakley, Sterling A., to Oakley Industries, Incorporated. Electrical heater and method of making the same. 3,492,624, 1-27-70, Cl. 338-296.
Oakley, Sterling A., to Oakley Industries Incorporated. Method for making an electric heating apparatus. 3,536,884, 10-27-70, Cl. 219-93.
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Obeda, Edward G., to Branson Instruments, Incorporated. Method for producing a fillet type weld on thermoplastic material using ultrasonic energy. 3,526,554, 9-1-70, Cl. 156-73.
Obeda, Edward G., to Branson Instruments, Incorporated. Solid horn with cooling means. 3,529,660, 9-22-70, Cl. 165-47.
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Obenhaus, Robert E., to Texas Instruments, Incorporated. Overload protection apparatus. 3,526,809, 9-1-70, Cl. 317-13.
Obenhaus, Robert E.; and Mc Bride, Lyle E., Jr., to Texas Instruments, Incorporated. Apparatus for protectlng semiconductor devices. 3,538,385, 11-3-70, Cl. 317-33.
Obenhaus, Robert E.; and Squiers, David J., to Texas Instruments, Incorporated. Electrothermal furnace control. 3,549,088, 12-22-70, Cl. 236-9.
Obenland, Clayton O.; and Papetti, Stelvio, to Olin Mathieson Chemical Corporation. Process for preparing meta- and paracarborane. 3,509,216, 4-28-70, Cl. 260-606.5
Obenshain, David Noel, to Westvaco Corporation. Magnetic curl breaker. 3,498,878, 3-3-70, Cl. 162-271.
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Obergefell, Ronald F.; and Ahinok, Robert A., to Houdaille Industries, Inc. Lubricant reverser metering valve system. 3,515,245, 6-2-70, Cl. 184-7.
Obergefell, Ronald F.; and Thiry, Geza A., to Houdaille Industries, Inc. Oil mist lubricating system. 3,491,855, 1-27-70, Cl. 184-55.
Obergfell, Allen R., to Fastener Corporation. Fastener driving tool. 3,527,142, 9-8-70, Cl. 91-461.
Obergfell, Allen R., to Fastener Corporation. Mechanical fastener feeding assembly. 3,550,831, 12-29-70, Cl. 227-136.
Obergfell, Allen R.; Doyle, Richard H.; Novak, Raymond F.; and Novak, Edward J., to Fastener Corporation. Fastener driving tool. 3,543,987, 12-1-70, Cl. 227-136.
Oberhauser, Charles J., to Dynatech Corporation. Method and apparatus for mixing flowable materials in closed containers. 3,542,344, 11-24-70, Cl. 259-75.
Oberhellmann, Theodore A., to Pettibone Mulliken Corporation. Shredding type hammermill with automobile- flattening feeder. 3,489,078, 1-13-70, Cl. 100-95.
Oberheuser, Joseph H., to Bausch & Lomb Incorporated. Prism variable anamorphic optical system. 3,497,289, 2-24-70, Cl. 350-182.
Oberhofer, Alfred W. Separation and recovery of zinc from solution containing zinc ions and other metal ions. 3,488,185, 1-6-70, Cl. 75-120.
Oberhofer, Alfred W., to Dow Chemical Company, The, mesne. Separation and recovery of cobalt and zinc. 3,537,845, 11-3-70, Cl. 75-120.
Oberhofer, Alfred W., to Nalco Chemical Company. Ion exchange method of preparing quaternary ammonium compounds. 3,539,605, 11-10-70, Cl. 260-429.
Oberholzer, Max; Locher, Robert; and Brechbuhl, Heinz, to Hasler A.-G. Device for initiation of the printing action on a high-speed printer. 3,528,368, 9-15-70, Cl. 101-93.
Oberkirch, Wolfgang; Herlinger, Heinz; and Gunther, Peter, to Farbenfabriken Bayer Aktiengesellschaft. Process for the copolymerization of olefin oxides with 1,3-diolefins. 3,526,615, 9-1-70, Cl. 260-94.2
Oberle, Artur, to Aktiengesellschaft Brown, Boveri & Cie. Controller with asymmetrical feedback time constant. 3,520,318, 7-14-70, Cl. 137-86.
Oberle, Theodore L.: *See—*
Gordon, Phillip B., Jr.; Loyd, Calvin D.; Martin, Eugene R.; and Oberle, Theodore L.,3,536,242.
Loyd, Calvin D.; Oberle, Theodore L.; and Satzler, Ronald L.,3,545,071.
Oberley, Gene L., to McGraw-Edison Company. Flatwork ironer chest. 3,516,184, 6-23-70, Cl. 38-56.
Oberley, William J.: *See—*
Daly, John E.; and Oberley, William J.,3,538,666.
Oberlin, Charles F. Frozen food product and method of preparing the same. 3,536,499, 10-27-70, Cl. 99-108.
Obermaier, Frank E.: *See—*
Franz, Rudolph L.; and Obermaier, Frank E.,3,500,722.
Oberman, Joel R.: *See—*
Montgomery, Donald H.; and Oberman, Joel R.,3,524,141.
Obermeier, Hermann, to Sulzer Brothers Limited. Indexing piston for an internal combustion engine. 3,512,455, 5-19-70, Cl. 92-31.
Oberndorfer, Johann, 1/2 to Metallgesellschaft Aktiengesellschaft, and 1/2 to Steel Company of Canada Limited, The. Apparatus for preheating solids. 3,512,766, 5-19-70, Cl. 266-20.
Oberpichler, Gerd. Hydraulic control device for an automatic motor vehicle change-speed gear. 3,500,706, 3-17-70, Cl. 74-868.
Oberright, Edward A.: *See—*
Hepplewhite, Herbert L.; and Oberright, Edward A.,3,492,233.
Oberst, Hermann; Ebigt, Joachim; Duve, Gunther; and Schommer, Alfred, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Vibration damped sandwich systems. 3,547,755, 12-15-70, Cl. 161-165.
Oberst, Hermann; Ebigt, Joachim; Duve, Gunther; and Schommer, Alfred, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Vibration damped sandwich systems. 3,547,756, 12-15-70, Cl. 161-165.
Oberst, Hermann; Ebigt, Joachim; Duve, Gunther; and Schommer, Alfred, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Vibration damped sandwich systems. 3,547,757, 12-15-70, Cl. 161-165.

Oberst, Hermann; Ebigt, Joachim; Duve, Gunther; and Schommer, Alfred, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Vibration damped sandwich systems. 3,547,758, 12-15-70, Cl. 161-165.

Oberst, Hermann; Ebigt, Joachim; Duve, Gunther; and Schommer, Alfred, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Vibration damped sandwich systems. 3,547,759, 12-15-70, Cl. 161-165.

Oberst, Hermann; Ebigt, Joachim; Duve, Gunther; and Schommer, Alfred, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Vibration damped sandwich systems. 3,547,760, 12-15-70, Cl. 161-165.

Oberster, Arthur E.; Beyler, Roger E.; and Sarett, Lewis H., to Merck & Co., Inc. Halocthisterone compounds. 3,498,975, 3-3-70, Cl. 260-239.55

Oberster, Arthur E.; Smith, George E.P., Jr.; and Farhat, Kelly, to Firestone Tire & Rubber Company, The. Process for oxidation of cyclohexane. 3,515,751, 6-2-70, Cl. 260-533.

Obert, Luciano: *See*—
Teagno, Wladimiro; and Obert, Luciano,3,533,048.

Oberthur, Heinrich, to Teves, Alfred, G.m.b.H. Braking-force regulator system with cutout. 3,525,552, 8-25-70, Cl. 303-6.

Oberthur, Heinrich, to Teves, Alfred, G.m.b.H. Coupling for a load-responsive braking-force regulator. 3,525,554, 8-25-70, Cl. 303-22.

Obloy, Leo A., to Special Drill and Reamer Corporation. Rotary cutting tool. 3,543,613, 12-1-70, Cl. 77-72.

Obmornov, Evegeny Vasilievich; Kretnik, Vladimir Gerasimovich; Koptelov, Valery Ivanovich; Dosvitskaya, Natalya Alexandrovna; Koptelova, Zinaida Petrovna; Masalova, Galina Pavlovna; Dosovitsky, Efim Izrailevich; and Ostrovskaya, Vera Nikolaevna. Method for preparing oxalic acid. 3,531,520, 9-29-70, Cl. 260-531.

Oborny, James M. Bale loading device. 3,515,292, 6-2-70, Cl. 214-6.

O'Boyle, Emmett James; and Rodi, Marlyn W., to Webb Publishing Company. Process for forming embossed foil pictures. 3,523,503, 8-11-70, Cl. 101-32.

O'Boyle, Kenneth M. Garment treating apparatus. 3,550,820, 12-29-70, Cl. 223-73.

Obreiter, Jean B., to Du Pont de Nemours, E. I., and Company. Method of regulating plant growth with tetra- cyanoquinodimethanes and formulations of said compounds. 3,526,497, 9-1-70, Cl. 71-105.

O'Brian, Paul L.: *See*—
Cardwell, William R.; Johnson, Lloyd E.; Lowry, Denis E.; O'Brian, Paul L.; and Shattuck, David C.,3,541,396.

O'Brien Corporation: *See*—
Volling, Elden L., 3,538,302.

O'Brien, Edward M. Retractable support for serving trays or the like. 3,497,076, 2-24-70, Cl. 211-1.3

O'Brien, Edward P. Tiltable and rotatively adjustable patio roof. 3,500,594, 3-17-70, Cl. 52-65.

O'Brien, Jay Philip; and Rachlin, Albert Israel, to Hoffmann-La Roche Inc. 2,3-Dihalophenyl-3-iodopropargyl ethers. 3,489,805, 1-13-70, Cl. 260-612.

O'Brien, Jay Philip; and Rachlin, Albert Israel, to Hoffmann-La Roche Inc. Aryloxy-and arylthio-acetylenic amines and the salts thereof. 3,513,198, 5-19-70, Cl. 260-570.5

O'Brien, Jeremiah Wagner, to United Engineering and Foundry Company. Control for obtaining constant gauge in a rolling mill. 3,490,256, 1-20-70, Cl. 72-6.

O'Brien, Jeremiah Wagner, to United Engineering and Foundry Company. Rolling mill method and apparatus. 3,491,571, 1-27-70, Cl. 72-244.

O'Brien, Jeremiah Wagner, to United Engineering and Foundry Company. Universal rolling mill. 3,496,750, 2-24-70, Cl. 72-237.

O'Brien, Jeremiah Wagner, to United Engineering and Foundry Company. Apparatus for bending the rolls of a rolling mill and like device. 3,526,118, 9-1-70, Cl. 72-243.

O'Brien, Jeremiah Wagner, to United Engineering and Foundry Company. Structural and beam straightening machine. 3,531,968, 10-6-70, Cl. 72-164.

O'Brien, John A., to Itek Corporation. Multiple display comparison method and apparatus. 3,534,167, 10-13-70, Cl. 178-6.8

O'Brien, John A.: *See*—
Sanford, Lloyd Clifford; and O'Brien, John A.,3,518,013.

O'Brien, John J. Olin Mathieson Chemical Corporation Power-actuated tool. 3,497,125, 2-24-70, Cl. 227-10.

O'Brien, John J., to Olin Mathieson Chemical Corporation. Fastener and guiding attachment therefor. 3,516,323, 6-23-70, Cl. 85-10.

O'Brien, John P. Cutting tool. 3,487,514, 1-6-70, Cl. 29-95.

O'Brien, Lawrence Francis, Jr., to Du Pont de Nemours, E. I., and Company. Process for creasing fabrics containing nylon. 3,497,583, 2-24-70, Cl. 264-136.

O'Brien, Lawrence H.; and Burnsweig, Joseph, Jr., to Hughes Aircraft Company. Microwave to electrical energy converter utilizing multipactor discharge between differing secondary electron emissive surfaces. 3,543,135, 11-24-70, Cl. 321-8.

O'Brien, Leo J.; and Holm, LeRoy W., to Union Oil Company of California. Flooding process using a substantially anhydrous soluble oil. 3,500,922, 3-17-70, Cl. 166-273.

O'Brien, Marrin J. Fish lure. 3,535,814, 10-27-70, Cl. 43-42.06

O'Brien, Merrill N., Jr.: *See*—
Di Pietro, Joseph; and O'Brien, Merrill N., Jr.,3,549,729.

O'Brien, Michael, to University of California, The Regents of the. Random sampler for fruit and the like. 3,522,735, 8-4-70, Cl. 73-421.

O'Brien, Morrough: *See*—
Chopp, John A.; O'Brien, Morrough; Roberts, Mack O.; and Scholz, Hubert,3,546,423.

O'Brien, Philip R.: *See*—
Driza, Charles E.; and O'Brien, Philip R.,3,509,599.

O'Brien, Robert F., to Eastman Kodak Company. Portable projection screen. 3,511,555, 5-12-70, Cl. 350-117.

O'Brien, Robert L.: *See*—
Bewalda, Robert A., Jr.; O'Brien, Robert L.; and Schoeneck, Robert L.,3,494,520.

O'Brien, Samuel James: *See*—
Van Loo, William Julius, Jr.; and O'Brien, Samuel James,3,508,860.

O'Brien, Stephen M.: *See*—
Herce, John A.; O'Brien, Stephen M.; and Prats, Michael,3,537,528.

O'Brien, Stephen; Gamlen, George Albert; and Thompson, David Thomas, to Imperial Chemical Industries Limited. Complex compounds and methods of making same. 3,519,663, 7-7-70, Cl. 260-429.

O'Brien Textiles Corporation: *See*—
Sullivan, Bernard E., 3,487,604.

O'Brien, William D., Jr.: *See*—
Geyer, James B.; Gumpert, Albert A., III; Hiaston, Daniel; and O'Brien, William D., Jr.,3,542,185.

O'Brobinak, John D.: *See*—
Kaufman, Martin H.; O'Brobinak, John D.; and Carrox, John W.,3,551,222.

Obukhov, Vitaly Arsenievich. Ducted stator for electrical machines. 3,508,093, 4-21-70, Cl. 310-65.

O'Callaghan, Gerald F., to Eaton Yale & Towne, Inc. Speed control apparatus with eddy current clutch and brake means. 3,518,472, 6-30-70, Cl. 310-95.

Occhialini, Carlo; and Tattini, Claudio, to Samputensili S.p.A. Machine for the control of helicoids and involutes. 3,534,481, 10-20-70, Cl. 33-179.5

Occidental Petroleum Corporation: *See*—
Dixon, David A., 3,487,769.

Occidental Research & Engineering Ltd.: *See*—
Mustian, William R., Jr.; Austin, James; and Ellis, John D., 3,522,833.

Ocean Pollution Control, Inc.: *See*—
Fitzgerald, Hugh J., 3,523,611.

Ocean Science & Engineering, Inc.: *See*—
Bascom, Willard, 3,538,876.
Mangels, Theodore F., 3,491,198.

Ocean Science and Engineering, Inc.: *See*—
Horton, Edward E., 3,490,550.
Horton, Edward E., 3,499,629.
Horton, Edward E., 3,511,476.

Ocean Systems Incorporated: *See*—
Lynch, Robert P., 3,508,410.

O'Cheskey, Theodore H., to United States Filter Corporation. Filter leaf. 3,542,205, 11-24-70, Cl. 210-331.

Ochi, Shikayuki: *See*—
Nagata, Minoru; Aoki, Nobuhiko; and Ochi, Shikayuki,3,512,096.
Omura, Yoshito; and Ochi, Shikayuki,3,548,332.

Ochi, Shuhei: *See*—
Kuroda, Hiroyuki; Ochi, Shuhei; and Shirakawa, Kenzo,3,536,064.

Ochiai, Noriomi, to Kabushikikaisha Tokyo Keiki Seizosho (Tokyo Keiki Seizosho Co., Ltd. Omnidirectional dielectric lens reflector. 3,550,147, 12-22-70, Cl. 343-911.

Ochs, Charles S.: *See*—
Acton, Daniel D.; Ochs, Charles S.; and Mumford, Orris E.,3,546,768.

Ochs, Charles S.; and Trainor, James W., to Anchor Hocking Glass Corporation. Closure cap aligning mechanism. 3,532,202, 10-6-70, Cl. 193-43.

Ochylski, Edward; and Kopp, Ernest A., to American Meat Packing Corporation, The. Automatic releasing mechanism. 3,500,494, 3-17-70, Cl. 17-24.

Ocker, Herbert Wilhelm Gustav, to Werner & Pfleiderer. Extracting apparatus for processing material having eliminable components. 3,525,124, 8-25-70, Cl. 18-12.

Ockinga, Virgil M. Chain wrench. 3,505,914, 4-14-70, Cl. 81-66.

Ocone, Luke Ralph: *See*—
Mailey, Everett; and Ocone, Luke Ralph,3,523,133.
Mailey, Everett A.; and Ocone, Luke R.,3,534,056.
Peschko, Norman Duffield; Block, Burton Peter; Dahl, Gerd Helmut; and Ocone, Luke R.,3,522,178.

O'Connell, Gerard P., to Baltimore Brushes, Inc., mesne. Combination fortune telling and smoke emitting device. 3,537,709, 11-3-70, Cl. 273-161.

O'Connell, Luke J.,1/2 to Havey, Thomas W. Rotary combustion turbine engine. 3,540,215, 11-17-70, Cl. 60-39.41

O'Connell, Paula A.; and Silenzi, Frances L. Clip for packaging of, for example, hair curlers. 3,529,716, 9-22-70, Cl. 206-65.

O'Connell, Thomas Brian. Dental cleaning means and process for making same. 3,545,025, 12-8-70, Cl. 15-104.94

O'Connell, William Grogan; Sanford, Herbert Brooks, Jr.; and Edwards, Bernard S., to Du Pont de Nemours, E. I., and Company. Process for drying gel-regenerated cellulose film. 3,515,780, 6-2-70, Cl. 264-342.

O'Conner, Charles E.; and Collura, Peter C., to Container Corporation of America. Hollow wall tray with corner lock. 3,539,094, 11-10-70, Cl. 229-34.

O'Connor, Dennis J.; and Whitaker, Leo G. Wheeled vehicle. 3,492,016, 1-27-70, Cl. 280-47.26

O'Connor, Donald T.: *See*—
Lorenzi, Donald E.; Migel, Hamilton; and O'Connor, Donald T.,3,495,166.

O'Connor, Donald T.; Debb, Arthur D.; and Erickson, Kenneth R., to Magnaflux Corporation. Hot product inspection system. 3,548,644, 12-22-70, Cl. 73-71.5

O'Connor, Francis M.: *See*—
Allenbach, Charles R.; and O'Connor, Francis M.,3,506,593.

O'Connor, James A. Device for packaging two separate substances. 3,543,967, 12-1-70, Cl. 222-136.

O'Connor, John J.; Rubin, Bernard; and Armington, Alton F., to United States of America, Air Force. Copper chloride crystal growth in silica gel matrix. 3,545,940, 12-8-70, Cl. 23-300.

O'Connor, Judith A.: *See*—
McKelvey, John B.; Benerito, Ruth R.; Berni, Ralph J.; and O'Connor, Judith A.,3,545,912.

O'Connor, Michael Niall; and Sexsmith, David Randal, to American Cyanamid Company. Guanylated polyhydroxylic polymers and process for preparing same under extremely acidic aqueous conditions. 3,496,155, 2-17-70, Cl. 260-91.3

O'Connor, Richard P., to Esso Research and Engineering Company. Water concentration control in phenol plant solvent. 3,526,587, 9-1-70, Cl. 208-321.

O'Connor, Robert H. Toaster accessory for broiling meat. 3,511,170, 5-12-70, Cl. 99-402.

O'Connor, Robert T.: *See*—
Hazlitt, Elwin D.; and O'Connor, Robert T.,3,493,266.

O'Connor, Roderic H.: *See*—
Becht, Cletus A.; Emerick, Robert M.; Horton, James A.; Mount, James E.; and O'Connor, Roderic H.,3,549,803.

O'Connor, Stephen C.: *See*—
Dawson, William Orval; O'Connor, Stephen C.; and Fellowes, Frederick S.,3,551,089.

O'Connor, Thomas E., to Bendix Corporation, The. Anti-friction bearing with compensating motor and flexure pivot. 3,534,616, 10-20-70, Cl. 74-5.

O'Connor, Thomas J. Method of abrasively shaping an electrode for electric discharge machining. 3,497,930, 3-3-70, Cl. 29-25.18

O'Connor, Thomas J. Quick-change tool for electroerosive machining. 3,506,800, 4-14-70, Cl. 219-69.

O'Connor, Thomas J. Apparatus for electro-erosion machining. 3,538,290, 11-3-70, Cl. 219-69.

O'Connor, Thomas, to Bendix Corporation, The. Means for supporting a rotor of a single degree of freedom gyroscope. 3,503,269, 3-31-70, Cl. 74-5.43

O'Connor, Walter J., to Litzenberger, Carl R. Quick-release cable loop assembly. 3,540,083, 11-17-70, Cl. 24-123.

O'Connor, William H., III, to Black and Decker Manufacturing Company, The. Modular brush holder assembly. 3,510,708, 5-5-70, Cl. 310-242.

O'Connor, William M., to Avco Corporation. Vehicle propulsion unit. 3,547,042, 12-15-70, Cl. 104-155.

O'Connor, William W., to Motorola, Inc. Transistor protecting circuit with overvoltage control and short circuit protection. 3,496,449, 2-17-70, Cl. 323-9.

Octronix, Inc.: *See*—
Klayman, Arnold I.; and Genest, Leonard J., 3,499,996.
Klayman, Arnold I.; and Genest, Leonard J., 3,541,266.

Oda, Hiromoto: *See*—
Mizuta, Yukio; Ano, Shizuya; Inoue, Kazuo; and Oda, Hiromoto,3,496,341.

Oda, Masanari; and Fujikawa, Masakazu, to Aisin Seiki Company Limited. Transfer machine for die-cast products. 3,488,692, 1-6-70, Cl. 214-1.

Oda, Takanori: *See*—
Kimura, Yukio; Yamamura, Taro; Kawai, Atsushi; Ikeda, Masamichi; Katsuyama, Takehiro; Oda, Takanori; and Kondo, Sakae,3,539,679.

Oda, Takashi; Manaka, Jiro; and Minamiyama, Kozo, to Takeda Chemical Industries, Ltd. Process for producing activated carbon in an ascending turning current of activating gas. 3,541,025, 11-17-70, Cl. 252-421.

Oda, Toshiya; and Hayashi, Kazutami, to Nippon Electric Company, Limited. Electroless gold plating solutions. 3,506,462, 4-14-70, Cl. 106-1.

Oda, Toshiya; and Hayashi, Kazutami, to Nippon Electric Company, Limited. Electrolytic silver-plating solution and method. 3,507,758, 4-21-70, Cl. 204-46.

Odachi, Yoshio: *See*—
Tatara, Seizo; Odachi, Yoshio; and Tokoro, Masaru,3,510,898.

Odan, Kyoji: *See*—
Yamada, Keisho; Umemura, Sumio; and Odan, Kyoji,3,541,129.

O'Daniel, Jerome B.: *See*—
Davidge, Ronald V.; Greer, Donald L.; McCornack, Richard W.; and O'Daniel, Jerome B.,3,516,528.

Odawara, Daisaku; Sugimoto, Hisao; and Sato, Tsutomu, to Kubota Tekko Kabushiki Kaisha. Method of supplying an excess amount of air or fuel-air mixture to a internal combustion engine and an apparatus therefor. 3,534,716, 10-20-70, Cl. 123-75.

Oddo, Peter A.; and Beckhr, Harold F., to Signalite, Inc., mesne. Adjustable electrode spark gap assembly. 3,513,516, 5-26-70, Cl. 29-25.16

Oddo, Rocco R.; and Joplin, Frederick H., to Singer-General Precision, Inc. Shaft angle encoder with brush selection logic circuitry. 3,518,663, 6-30-70, Cl. 340-347.

Oddy, Edward P., to Borg-Warner Corporation. Method of fabricating a heat exchanger. 3,510,930, 5-12-70, Cl. 29-157.3

Oddy, Edward P., to Borg-Warner Corporation. Sheet metal punch. 3,511,072, 5-12-70, Cl. 72-326.

O'Dea, Bernard J. Hinge for folding screens and the like. 3,501,800, 3-24-70, Cl. 16-150.

Odean, David J.; and Wells, Roy E., to Kartridg Pak Co., The. Fastener forming and applying machine. 3,524,242, 8-18-70, Cl. 29-243.57

Odeh, Aziz S., to Mobil Oil Corporation. Oil recovery process. 3,519,077, 7-7-70, Cl. 166-274.

Odell, Eugene I., to Drake Corporation. Hydraulic control systems. 3,537,356, 11-3-70, Cl. 91-400.

Odell, Thomas W.: *See*—
Hayek, Arthur F.; Stavis, Gus; and Odell, Thomas W.,3,523,730.

Odello, Robert: *See*—
Lumbroso, Daniel; Vu, Quang Dang; and Odello, Robert,3,505,421.

Oden, Carol L.: *See*—
Pearce, Roger G., 3,499,103.

Oden, Hoeckle; and Siegel, Herbert, to International Standard Electric Corporation. Call forwarding system with timed cancellation. 3,502,818, 3-24-70, Cl. 179-18.

Oden, Hoeckley S., to International Standard Electric Corporation. Method and circuit arrangement to connect subscriber telephone stations and handsets via radio in telephone systems. 3,535,689, 10-20-70, Cl. 343-175.

Oden, Hoeckley, to International Standard Electric Corporation. Arrangement for automatic assessment of fees in conference call circuits. 3,510,594, 5-5-70, Cl. 179-7.1

Oden, Hoeckley; and Siegel, Herbert, to International Standard Electric Corporation. Disconnection of absentee service in telephone exchanges. 3,501,595, 3-17-70, Cl. 179-18.

Oden, William A., to Doughboy Industries, Inc. Unitary manifold and independent interlocking grid construction for water filtration systems. 3,536,195, 10-27-70, Cl. 210-331.

Odenbach, Heinz: *See*—
Siefert, Roland; and Odenbach, Heinz,3,546,953.

Odend'Hal, Fortune; and Duffy, Patrick J., to Jamison Door Company. Installation package for prefabricated door. 3,545,133, 12-8-70, Cl. 49-380.

Odenhagen, Rune Gurien Alex; and Eriksson, Vilho Johannes, to AB Akerlund & Rausing. Trough-like carton having tripartite corner-panels. 3,536,248, 10-27-70, Cl. 229-31.

Odenthal, Warner R., to United States Plywood Corporation. Grid core panel. 3,496,052, 2-17-70, Cl. 161-44.

Odenwald, William. Creature repeller. 3,525,169, 8-25-70, Cl. 40-106.3

Oderman, Samuel, to Sta-Hi Corporation. Printing press cylinder with mechanical and vacuum holding means for flexible printing plates. 3,536,003, 10-27-70, Cl. 101-415.1

Oderman, Samuel; Wiseman, Raymond L.; and Rushforth, George T., to Sta-Hi Corporation. Automatic stacking device for publication conveyor. 3,526,170, 9-1-70, Cl. 93-93.

Oderman, Samuel; Wiseman, Raymond L.; and Rushforth, George T., to Sta-Hi Corporation. Controlled variable speed stacking device for publication conveyor. 3,548,995, 12-22-70, Cl. 198-20.

Odermatt, Karl: *See*—
Hero, Franz; Odermatt, Karl; and Muller, Walter,3,491,384.
Hero, Franz; Odermatt, Karl; and Muller, Walter,3,524,416.

Odiaga, Carlos E.; and Shlesinger, Bernard Edward, Jr. Surgical anastomotic sleeve coupling. 3,496,939, 2-24-70, Cl. 128-334.

Odier, Jean; and Lefrancois, Aymar. Stationary test-bench for automobile vehicles. 3,498,122, 3-3-70, Cl. 73-117.

Odinak, Alec; Reymore, Harold E., Jr.; and Sayigh, Adnan A. R., to Upjohn Company, The. Polyols of methylenedianilines. 3,499,009, 3-3-70, Cl. 260-570.

Odion, John R.: *See*—
Barke, John L.; Du Vivier, Charles L.; Odion, John R.; and Pallat, Ludwig R.,3,518,622.

Odiorne, John W., to Polaroid Corporation. Method of manufacturing a roller. 3,550,258, 12-29-70, Cl. 29-527.2

Odle, Ralph S., Jr.; and Kotyuk, Theodore S., to Whirlpool Corporation. Control circuit for a laundry appliance. 3,524,263, 8-18-70, Cl. 34-45.

Odom, George H. Fishing reels. 3,540,672, 11-17-70, Cl. 242-84.2

Odom, Herbert G., to Ford Industries, Inc., mesne. Telephone call forwarding method and apparatus. 3,542,964, 11-24-70, Cl. 179-18.

Odone, Giovanni; and Devenoges, Claude, to Paillard S.A. Luminous signal electronic exposure meter for motion picture cameras. 3,488,557, 1-6-70, Cl. 315-153.

Odone, Giovanni: *See—*
Prezzi, Claudio; and Odone, Giovanni,3,506,901.

O'Donnell, John F.:*See—*
Carnevale, Richard J.; Curran, John E.; Dohanich, George J., Jr.; O'Donnell, John F.; Speer, William H.; Trudgen, Gary A.; and Wallace, Leonard J.,3,548,178.
Curran, John E.; and O'Donnell, John F.,3,516,026.

O'Donnell, John T.:*See—*
Arentzen, Charles; and O'Donnell, John T.,3,545,961.

O'Donnell, Miles C., to Eastman Kodak Company. Projector system with automatic cut-out switch for control units during high speed operation. 3,516,588, 6-23-70, Cl. 226-43.

O'Donnell, Miles C., to Eastman Kodak Company. Film transport control device. 3,527,427, 9-8-70, Cl. 242-205.

O'Donnell, Miles C.; Johnson, Robert B.; Moriarty, John M.; and Wollschleger, Frank D., to Eastman Kodak Company. Projector. 3,520,596, 7-14-70, Cl. 352-92.

O'Donnell, Peter:*See—*
Burr, Donald William; and O'Donnell, Peter,3,496,374.

O'Donnell, Thomas J. Method of etching and a photographic gelatin resist forming element therefor. 3,488,191, 1-6-70, Cl. 96-36.

O'Donnell, Thomas P. Writing platform comprising a container element. 3,500,769, 3-17-70, Cl. 108-25.

O'Donnell, William R., to Valve Corporation of America. Hand-held dispenser with dual valve. 3,503,539, 3-31-70, Cl. 222-95.

O'Donnell, William R., to Valve Corporation of America. Hand-held dispenser with dual valve. 3,525,997, 8-25-70, Cl. 222-95.

O'Donnell, William R., to Valve Corporation of America. Dispenser screw cap and overcap. 3,526,343, 9-1-70, Cl. 222-182.

O'Donnell, William R., to Valve Corporation of America. Measuring type liquid dispenser. 3,534,889, 10-20-70, Cl. 222-402.13

O'Driscoll, Peter F., to United Aircraft Corporation. Composite metal structure. 3,507,634, 4-21-70, Cl. 29-191.4

Odson, Clifford S., to Therm-O-Disc Incorporated. Thermostatically controlled system. 3,541,488, 11-17-70, Cl. 337-13.

Ody, Elta E. Purse insert. 3,533,459, 10-13-70, Cl. 150-34.

Oe, Takanori: *See—*
Nakanishi, Michio; Kuriyama, Tsuneto; Oe, Takanori; and Kobayakawa, Toshihiro,3,494,957.
Nakanishi, Michio; Okada, Tadao; and Oe, Takanori,3,531,472.

Oechsle, Albert R., to General Electric Company. Magnetic core and coil assembly having a gap which is fixed by a reinforced adhesive layer spanning the gap. 3,522,569, 8-4-70, Cl. 336-165.

Oechsli, Barnard L.: *See—*
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Omori, Masahiro, to Bell Telephone Laboratories, Incorporated. Tunable nonreciprocal coupling network. 3,519,957, 7-7-70, Cl. 333-1.1
Omori, Masahiro, to Varian Associates. Electronically tuned solid state oscillator. 3,546,624, 12-8-70, Cl. 331-107.
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O'Neill, Robert C., to Cooper Laboratories, Inc. Method of treating hypertension with alkali metal salts of zinc diethylenetriaminepentaacetate. 3,501,577, 3-17-70, Cl. 424-289.
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Ono, Toshiro, to Teijin Limited. Melt spinning apparatus. 3,508,296, 4-28-70, Cl. 18-8.
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Onoyama, Takashi; and Ichino, Sadayoshi, to Nippon Glass Fiber Co., Ltd. Method of forming a rigid tubular body from a flat woven sleeve. 3,501,562, 3-17-70, Cl. 264-137.
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Ooue, Shingo; Ueda, Hiroyuki; and Hashiue, Masakazu, to Fuji Shashin Film Kabushiki Kaisha. Photographic picture image projecting method and device capable of contrast variation including reversal. 3,498,705, 3-3-70, Cl. 353-20.
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Opdahl, Gerald E. Spatter control apparatus for ranges. 3,500,813, 3-17-70, Cl. 126-39.
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Oppelt, John Christian; Megson, Frederic Houghton; and Beachem, Michael Thomas, to American Cyanamid Company. Mono-aromatic-pentaalkyl ethers of hexamethylolmelamine crease-proofing agents. 3,535,318, 10-20-70, Cl. 260-249.6
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Oppenheimer, Jess. Adjustable lock support. 3,525,543, 8-25-70, Cl. 287-99.
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Opprecht, Paul. Electrode roll for welding machines. 3,501,611, 3-17-70, Cl. 219-84.
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Origer, Terrence F.; and Fick, Herbert J., to Schjeldahl, G. T., Company. Use of a silane coating to bond copper to plastic in making a printed circuit. 3,508,983, 4-28-70, Cl. 156-3.

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Orkin, Bernard A., to Mobil Oil Corporation. Catalyst Polymerization reaction. 3,539,648, 11-10-70, Cl. 260-615.

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Orkin, Stanley S.; and Hudacko, Vincent J., to Kaman Corporation. Bearing construction. 3,535,005, 10-20-70, Cl. 308-72.

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Orkney, James Bruce; Mijich, Joseph T.; and Tyler, Donald W., said Tyler assor. to said Orkney and said Mijich. Method of and apparatus for feeding flatwork into a flatwork ironer. 3,509,650, 5-5-70, Cl. 38-143.

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Orkney, John Carnegie. Reciprocating machines. 3,521,614, 7-28-70, Cl. 123-196.

Orlandini, Bruno; and Schmittroth, Walter, to Bunker Hill Company, The, mesne. Process of selective fluorine removal from zinc concentrates and manganese dioxide. 3,494,841, 2-10-70, Cl. 204-119.

Orlandini, Bruno; and Schmittroth, Walter, to Bunker Hill Company, The. Process of recovering metals from zinc plant residue. 3,510,414, 5-5-70, Cl. 204-119.

Orlando, Carl. Coffee maker. 3,527,153, 9-8-70, Cl. 99-315.

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Orlando, Daniel; and Kirchberger, Walter Carl, to Gilmore Industries, Inc. Method and apparatus for testing battery casings for leaks. 3,529,463, 9-22-70, Cl. 73-49.2

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Orlemann, Justus K., to Pfizer, Chas., & Co., Inc. Process of producing steel. 3,520,680, 7-14-70, Cl. 75-212.

Orloff, Daniel L.; and Middleton, Frederic H., to Mayer, Oscar, & Co., Inc. Continuous stuffing system. 3,537,129, 11-3-70, Cl. 17-35.

Orloff, George, to Molins Machine Company Limited. Hydraulically operated servo-mechanisms. 3,520,230, 7-14-70, Cl. 91-413.

Orloff, William R., to American Electronic Laboratories, Inc. In-circuit semiconductor leakage testing means and method. 3,510,775, 5-5-70, Cl. 324-158.

Orlomoski, Roger W., to Reed Rolled Thread Die Co. Self-locking screws. 3,517,717, 6-30-70, Cl. 151-22.

Orlomoski, Roger W., to Reed Rolled Thread Die Co. Thread rolling die with cylindrical slug forming and removal surface. 3,538,739, 11-10-70, Cl. 72-469.

Orlomoski, Roger W., to Reed Rolled Thread Die Co. Thread rolling die with stabilizing portion. 3,538,740, 11-10-70, Cl. 72-469.

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Orlowki, Gerald J. Slicing machine. 3,537,494, 11-3-70, Cl. 146-78.

Orlowski, Gerald J. Onion ring separator. 3,534,792, 10-20-70, Cl. 146-1.

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Ormsby, Phillip A.; and Thompson, Ethbert C., III, to United States of America, Army. High strength hot-press die. 3,550,213, 12-29-70, Cl. 18-47.

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Orne, Laurence E., to United States of America, Air Force. Testing circuitry for multi-channel communication system. 3,508,018, 4-21-70, Cl. 179-175.3

Orner, John W., to Avco Corporation. Means for and method of detecting leaks in the seal of a component. 3,517,548, 6-30-70, Cl. 73-49.3

Ornstein, Jackie; and Manylo, Walter, to Gulf Oil Canada Limited. Purification of diphenylol propane. 3,493,622, 2-3-70, Cl. 260-619.

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Oroza, August, to Robertshaw Controls Company. Oxygen diluter system. 3,526,239, 9-1-70, Cl. 137-81.

Oroza, August, to Robertshaw Controls Company. Oxygen diluter with mixture nozzle. 3,526,240, 9-1-70, Cl. 137-81.

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Orr, Clyde, Jr., to Georgia Tech Research Institute. Method and apparatus for measuring angle of contact between liquids and solids. 3,525,255, 8-25-70, Cl. 73-64.4

Orr, Donald J. Method of cleaning and sanitizing food processing devices. 3,511,706, 5-12-70, Cl. 134-23.

Orr, Harley J., to Sola Basic Industries, Inc. Heating and radiating unit for electric heaters. 3,510,940, 5-12-70, Cl. 29-611.

Orr, Harley J., to Sola Basic Industries, Inc. Disconnect for electric meters. 3,519,976, 7-7-70, Cl. 339-36.

Orr, Harley J., to Sola Basic Industries, Inc. Disconnect for electric meters. 3,528,049, 9-8-70, Cl. 339-36.

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Orr, James E.; Jones, Carl Lawrence; and Bickford, Nelson Keith, to Litton Precision Products, Inc. High power wide band cross field amplifier with ceramic supported helix. 3,504,223, 3-31-70, Cl. 315-3.5

Orr, John L., to Keystone Consolidated Industries, Inc. Combination padlock. 3,518,852, 7-7-70, Cl. 70-25.

Orr, John L., to Keystone Consolidated Industries, Inc. Fence tumbler lock. 3,528,267, 9-15-70, Cl. 70-21.

Orr, Walton A., to General Electric Company. Strip bonded roll heater. 3,524,967, 8-18-70, Cl. 219-469.

Orr, William H., to Bell Telephone Laboratories, Incorporated. Process of making an R.C. circuit and calibrating same. 3,542,654, 11-24-70, Cl. 204-15.

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Orsatti, Louis A. Baseball base anchoring device. 3,508,747, 4-28-70, Cl. 273-25.

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Ort, Lewis John. Decorating bread products. 3,537,406, 11-3-70, Cl. 107-54.

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Ort, Morris R.; and Mottus, Edward H., to Monsanto Company. Process for making methylene bis(Group III A metal halide). 3,509,189, 4-28-70, Cl. 260-448.

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Ort, Werner; and Frank, Kurt, to Fernseh G.m.b.H. Image orthicon tubes. 3,499,197, 3-10-70, Cl. 29-25.16

Ort, William. Combination bucket and brush support shield for workmen. 3,493,152, 2-3-70, Cl. 224-5.

Ort, Wolfgang, to Eastman Kodak Company. Manually set objective for a photographic camera. 3,505,942, 4-14-70, Cl. 95-64.

Ort, Wolfgang, to Eastman Kodak Company. Photographic camera with an exposure control device. 3,511,145, 5-12-70, Cl. 95-10.

Ortec: *See—*
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Ortel, Gerhard. Machine for butt joining the longitudinal edges of thin flat workpieces. 3,547,735, 12-15-70, Cl. 156-440.

Orth, George Otto, Jr., to Georgia-Pacific Corporation. Method of making wood laminates using an adhesive of phenol-aldehyde resin with a particular clay composition. 3,522,128, 7-28-70, Cl. 156-335.

Orth, Henry W.; and Byrne, John R., to Stationers Loose Leaf Company. Sheet lifter for looseleaf ring binder. 3,493,310, 2-3-70, Cl. 402-24.

Orth, Peter. Method of and apparatus for manufacturing the plates of plate-type heaters and the like. 3,509,753, 5-5-70, Cl. 72-177.

Orth, Roger W.: *See—*
Giarola, Attilio J.; Jackson, Darrell R.; Orth, Roger W.; and Robbins, William P.,3,506,933.

Orth, William H., to SCM Corporation, mesne. Method of masking edge of glazed ceramic tiles. 3,502,491, 3-24-70, Cl. 117-5.5

Orth, Winfried; Rappen, Ludwig; and Busse, Gerd, to Rutgerswerke und Teerverwertung Aktiengesellschaft. Process for preparing pyryl-(2)-acetonitriles. 3,523,952, 8-11-70, Cl. 260-326.62

Orth, Winfried; Rappen, Ludwig; and Busse, Gerd, to Rutgerswerke und Teerverwertung Aktiengesellschaft. Process for preparing pyryl-(2)-acetic acid esters. 3,544,589, 12-1-70, Cl. 260-326.3

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Ortheil, Hans; and Hilscher, Donald J., to Allied Chemical Corporation. Dyed fiber products. 3,493,316, 2-3-70, Cl. 8-34.

Ortheil, Johannes, to Langen & Co. Antifriction ball joint. 3,532,371, 10-6-70, Cl. 287-88.

Ortheil, Johannes, to Langen & Co. Joint assemblage for use in suspension systems of motor vehicles. 3,537,737, 11-3-70, Cl. 287-88.

Ortheil, Johannes. Damping means for hydro-pneumatic oleo struts and the like. 3,542,169, 11-24-70, Cl. 188-285.

Ortheil, Johannes. Packing system for hydro-pneumatic shock absorbers. 3,550,733, 12-29-70, Cl. 188-282.

Orthmann, Jurgen; and Paulus, Rudolf, to Agfa-Gevaert Aktiengesellschaft. Arrangement and method for illumination control in a color printer. 3,497,611, 2-24-70, Cl. 178-5.2

Ortho Pharmaceutical Corporation: *See—*
Huck, Charles M., 3,506,008.
Huck, Charles M., 3,511,409.
Huck, Charles M., 3,527,190.
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Orthuber, Richard Kaspar, to International Telephone and Telegraph Corporation. Television display device which utilizes electron multipliers. 3,541,254, 11-17-70, Cl. 178-7.3

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Ortlieb, William L., to Colgate-Palmolive Company. Scanning apparatus for registration marks using ultra-violet light. 3,522,432, 8-4-70, Cl. 250-71.

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Ortloff, John E., to Esso Production Research Company. Automatic drilling system. 3,497,019, 2-24-70, Cl. 175-27.

Ortman-McCain Company: *See—*
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Ortmann, Christian: *See—*
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Ortmann, Christian, to International Standard Electric Corporation. Arrangement for optically scanning a recording medium using fixed lamps for illumination. 3,549,894, 12-22-70, Cl. 250-219.

Ortner, Martin H.: *See—*
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Orton, Edward, Jr., Ceramic Foundation, The: *See—*
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Steele, Richard E.; and Vukovich, Milan, Jr., 3,533,291.
Steele, Richard E.; Vukovich, Milan, Jr.; and Hood, Leroy Scott, Jr., 3,541,856.

Orts, Joseph Narcisse, to La Telemecanique Electrique. Rocker control for circuit-breaker with indication of position. 3,538,285, 11-3-70, Cl. 200-167.

Ortuno, Angel V.; Municio, Vicente Martin; and Mateos, Federico Lopez, to Empresa Auxiliar de la Industria S.A. Process of recovering iron ore from iron pyrites with acid leachant. 3,545,958, 12-8-70, Cl. 75-3.

Ortwerth, Paul J.; and Craig, Roger R., to United States of America, Air Force. High enthalpy air for hypersonic shock tunnel testing. 3,505,867, 4-14-70, Cl. 73-147.

Orui, Ryuzo, to Nippon Electric Company, Limited. Electron tube device provided with a periodic permanent magnet focussing means and magnetic flux temperature compensating means. 3,529,197, 9-15-70, Cl. 313-84.

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Osaka, Masahiro. Method for manufacturing water-proofing agent for cement. 3,535,250, 10-20-70, Cl. 260-23.3

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Osawa, Hideo; Imooka, Masanori; Taniguchi, Fukuo; and Yamashita, Sunao, to Tokyo Shibaura Electric Co., Ltd. Apparatus for detecting foreign matters mixed with powdered or granular materials. 3,549,263, 12-22-70, Cl. 356-209.

Osbahr, Marvin L. Farrowing crate. 3,509,854, 5-5-70, Cl. 119-20.

Osbeck, Gunnar Ingemar Sigvard. Surgical chair or the like. 3,536,355, 10-27-70, Cl. 297-71.

Osberg, Stanley C., to Keystone Consolidated Industries, Inc. Carton construction. 3,539,089, 11-10-70, Cl. 229-27.

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Osbond, John Mervyn; Fothergill, Graham Alwyn; and Wickens, James Charles, to Hoffmann-La Roche Inc.2-[2-(Lower alkyl)-amino-1-hydroxy-ethyl] benzofuran having a hydrocarbon cyclic moiety bridging positions 6 and 7. 3,551,458, 12-29-70, Cl. 260-346.2

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Osborn, Charles W. Interlocking golf gloves. 3,508,280, 4-28-70, Cl. 2-159.

Osborn, Daniel C.; and Stewart, Richard D., to General Electric Company. Solid state scanning system. 3,502,802, 3-24-70, Cl. 178-6.

Osborn, Denis L., to National Service Industries, Inc. Breeder cage. 3,545,406, 12-8-70, Cl. 119-17.

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Osborn, Lloyd, to V-M Corporation. Tape recorder controls. 3,545,766, 12-8-70, Cl. 274-4.

Osborn, Peter E.; Creamer, Weldon; and Ferrell, Herbert W., to Tune-Tronics, Inc. Apparatus for electronically tuning an electric guitar. 3,501,992, 3-24-70, Cl. 84-454.

Osborn, Stephen W.: *See—*
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Osborn, Stephen W.; and Broderick, Edward, to Thiokol Chemical Corporation. Method of preparing saturated polymers of simple halocarbons in a corona discharge. 3,494,845, 2-10-70, Cl. 204-169.

Osborne, Alan Paul; and Ince, John, to Farbenfabriken Bayer Aktiengesellschaft, mesne. Bonding textile materials to rubber containing hexamethyl ether of hexamethylolmelamine. 3,522,127, 7-28-70, Cl. 156-335.

Osborne, Bruce, to Malabar Manufacturing Company. Aircraft ground support equipment actuator. 3,509,796, 5-5-70, Cl. 92-251.

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Osborne, Charles Edward; and Shelton, Eugene Ransom, to Eastman Kodak Company. Process for the preparation of fluorindine derivatives. 3,514,457, 5-26-70, Cl. 260-267.

Osborne, Charles V. Mining car. 3,524,559, 8-18-70, Cl. 214-82.

Osborne, David W., to Dow Chemical Company, The. Nitrification inhibitor comprising substituted pyrazoles. 3,494,757, 2-10-70, Cl. 71-1.

Osborne, Earl H., to Allegheny Ludlum Steel Corporation. Dry impact coating of powder metal parts. 3,549,357, 12-22-70, Cl. 75-208.

Osborne, Edwin F., Jr., to Esquire, Inc. Method of making lighting casings. 3,525,142, 8-25-70, Cl. 29-445.

Osborne, Fred H., to Wurlitzer Company, The. Cash value accumulator. 3,526,236, 9-1-70, Cl. 133-8.

Osborne, Fred H.; Tuttle, Robert S.; and Corbett, Michael J., to Wurlitzer Company, The. Changer and selector mechanism. 3,501,153, 3-17-70, Cl. 274-10.

Osborne, Graham O.; Webb, Shirley B.; and Wood, Jack, to Shell Oil Company. Certain phosphinooxyphthalide compounds. 3,494,937, 2-10-70, Cl. 260-343.3

Osborne, James C., to Parker-Hannifin Corporation. Flareless tube coupling. 3,499,671, 3-10-70, Cl. 285-341.

Osborne, Marvin J. Disposable cap. 3,512,181, 5-19-70, Cl. 2-195.

Osborne, Phillip W., to Commonwealth of Puerto Rico. Steady state fracture device. 3,538,757, 11-10-70, Cl. 73-100.

Osborne, Robert F.; Melville, John W.; Eichler, Rolf W.; Northrup, Karl A.; and Wirley, John F., to Xerox Corporation. Accounting device for xerographic reproducing apparatus. 3,512,885, 5-19-70, Cl. 355-14.

Osborne, Thomas E., to Hewlett-Packard Company. Data processing system including controllable means for direct interconnecting the input and output units. 3,530,440, 9-22-70, Cl. 340-172.5

Osborne, Thomas E., to Hewlett-Packard Company. Addressing apparatus. 3,535,701, 10-20-70, Cl. 340-174.

Osborne, William B., to Fenwal Incorporated. Capacitor potential sampling and indicating system. 3,537,087, 10-27-70, Cl. 340-237.

Osborne, William Galloway, Jr.; and Wilson, Howard Ivan, to Du Pont de Nemours, E. I., and Company. Coating machine having spiral surface agitator roll. 3,540,410, 11-17-70, Cl. 118-249.

Osborne, William T., to Carrier Corporation. Refrigerant flow control mechanism. 3,499,296, 3-10-70, Cl. 62-115.

Osborne, William T., to Carrier Corporation. Refrigeration apparatus including condenser and evaporator in a housing. 3,524,331, 8-18-70, Cl. 62-498.

Osborne, William T., to Carrier Corporation. Refrigeration apparatus including unitary condenser subcooler, evaporator structure. 3,534,565, 10-20-70, Cl. 62-498.

Osburn, Kenneth W.: *See—*
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Oscar Schmidt-International, Inc.: *See—*
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Osdene, Thomas S.; and Santilli, Arthur A., to American Home Products Corporation. 4-Amino-2-aryl-7-alkylamino-6-pteridinecarboxamidines. 3,516,998, 6-23-70, Cl. 260-247.5

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Santilli, Arthur A.; and Osdene, Thomas S.,3,534,058.

Osdor, Asriel, to Hydro Chemical & Mineral Corporation. Apparatus for providing large surface area direct contact between a liquid and another fluid. 3,496,996, 2-24-70, Cl. 165-111.

Osdor, Asriel, to Euro-Can Investment Corporation Ltd. Desalination of saline water by phase separation near critical pressure of pure water. 3,522,152, 7-28-70, Cl. 203-11.

Ose, Earl E.: *See—*
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Osegowitsch, Victor: *See—*
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Oseki, Kazuya; and Ubukata, Yasuyuki, to Nippon Electric Company, Limited. Four-wire tandem switching network having means for selectively coupling connected trunk circuits to provide additional functions without increasing the number of circuits required in the network. 3,542,959, 11-24-70, Cl. 179-18.

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Osepchuk, John M.; and Wright, William H., Jr., to United States of America, Army, mesne. Means for incorporating materials having magnetic and/or electric properties in electron interaction devices. 3,535,579, 10-20-70, Cl. 315-3.5

Oseroff, Israel. Apparatus for pulverizing litter and burning refuse. 3,550,541, 12-29-70, Cl. 110-8.

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O'Shea, Francis X., to Uniroyal, Inc. Dialkyl hydroxybenzyl hydrazines being used to stabilize organic compositions. 3,489,684, 1-13-70, Cl. 252-51.5

O'Shea, Francis X., to Uniroyal, Inc. Sulfur containing bis-phenolic. 3,489,804, 1-13-70, Cl. 260-609.

O'Shea, Francis X., to Uniroyal, Inc. 2-Hydroxy-3,5-dihydrocarbylbenzyl-3,5- dihydrocarbyl-4-hydroxyphenyl sulfides. 3,491,155, 1-20-70, Cl. 260-609.

O'Shea, Francis X.; and Sage, Gordon Paul, to Uniroyal, Inc. 2-Hydroxy-3,5-dihydrocarbylbenzyl 3-hydrocarbyl-4- hydroxy-5-(dialkylaminomethyl) phenyl sulfide. 3,491,102, 1-20-70, Cl. 260-293.4

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Yatabe, Hiroshi; Takei, Takaji; Oshima, Keiji; Hikita, Masatoshi; Kanda, Shigeru; Sato, Yasuhiro; Nkayama, Takeshi; and Nakata, Tetsuya,3,550,269.

Oshima, Nobumasa; Enoki, Yoshio; and Tani, Norihiro, to Matsushita Electric Industrial Co., Ltd. Resistance material and method for making the same. 3,547,834, 12-15-70, Cl. 252-511.

Oshima, Ryoichiro; and Tanaka, Sigeru, to Hitachi, Ltd. Granular substance filling apparatus. 3,545,503, 12-8-70, Cl. 141-286.

Oshima, Shintaro; and Amano, Kitsutaro, to Kokusai Denshin Denwa Kabushiki Kaisha. Magnetic memory element having two thin films of differing coercive force. 3,521,252, 7-21-70, Cl. 340-174.

Oshima, Shuzo; Masuda, Eishyo; Sugiyama, Iwao; Akashi, Sueo; and Sato, Kiyoshi, to Hitachi, Ltd. Electric motor mounting device. 3,544,048, 12-1-70, Cl. 248-18.

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Oskin, Lev Ivanovich; Anna-Seidov, Chary; Zhukov, Alexandr Sergeevich; and Zadoya, Alexandr Fedoseevich. Device for spinning fibres. 3,500,623, 3-17-70, Cl. 57-58.89

Oskin, Lev Ivanovich; Anna-Seidov, Chary; Zhukov, Alexandr Sergeevich; and Zadoya, Alexandr Fedoseevich. Twisting device for pneumatic spinning. 3,521,440, 7-21-70, Cl. 57-58.89

Oslakovic, Frank E.; and Reilly, Donald C., to Westinghouse Air Brake Company. Tram control system. 3,497,055, 2-24-70, Cl. 198-92.

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Osmalov, Jerome S.; Pasquine, Arthur R.; Seligman, Robert B.; and Britton, Andrew C., to Morris, Philip, Incorporated. Cigarette ventilation. 3,490,461, 1-20-70, Cl. 131-10.5

Osmalov, Jerome S.; Thomson, Richard N.; Casavant, Roger M.; and Panicci, Richard L., to Morris, Philip, Incorporated. Apparatus for fusing together two pieces of strip material. 3,542,627, 11-24-70, Cl. 156-502.

Osmar, John J.: *See—*
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Osmond, Desmond Wilfrid John; Waite, Frederick Andrew; and Walbridge, Derek John, to Imperial Chemical Industries Limited. Polymer dispersions and dispersants. 3,514,500, 5-26-70, Cl. 260-874.

Osmond, Desmond Wilfrid John: *See—*
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Osmond, Lawrence R. Ski carrying means. 3,504,921, 4-7-70, Cl. 280-8.

Osojnak, Boris M. Internal combustion engine. 3,492,979, 2-3-70, Cl. 123-53.

Osorio, George. Anti-tampering device. 3,513,801, 5-26-70, Cl. 116-114.

Osovitz, Eugene E.; Schneider, Julius F.; and Zysk, Edward D., to Engelhard Industries, Inc. Tungsten-rhenium alloy thermocouple with compensating lead wires. 3,508,975, 4-28-70, Cl. 136-227.

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Ospag, Osterreichische Sanitar-Kermik- und Porzellan-Industrie Aktiengesellschaft: *See—*
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Ospina-Racines, Eduardo. Natural gas transmission power cycle. 3,508,415, 4-28-70, Cl. 62-52.

Oss, George K., to Susquehanna Corporation, The. Nose cone ejection for payloads employing parachutes. 3,487,781, 1-6-70, Cl. 102-49.4

Ossanna, Oliver A., to Xerox Corporation. Synthesis of alpha metal-free phthalocyanine. 3,492,309, 1-27-70, Cl. 260-314.5

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Ossenkop, Robert J., to American Machine & Foundry Company. Movable-carriage ski exerciser. 3,547,434, 12-15-70, Cl. 272-57.

Ossfeldt, Bengt E., to Telefonaktiebolaget L M Ericsson. Method of localizing a fault in a system including at least two parallelly working computers. 3,517,174, 6-23-70, Cl. 235-153.

Osswald, Bernhard; and Wilka, Josef, to Bayerische Motoren Werke Aktiengesellschaft. Boat drive. 3,529,564, 9-22-70, Cl. 115-34.

Ost, Clarence Samuel. Automatic computing range coupled light integrator. 3,542,470, 11-24-70, Cl. 355-68.

Ost, Walter; Thomas, Klaus; and Jerchel, Dietrich, to Boehringer Ingelheim G.m.b.H. Quaternary derivatives of 1,2,3,4-tetrahydro-9-amino-acridine. 3,519,631, 7-7-70, Cl. 260-279.

Osta, Francesco. Method and machine for jointing bands in motion. 3,549,458, 12-22-70, Cl. 156-505.

Ostap, Stephen; and Bartok, Denis, to Alcan Research and Development Limited. Removal of sodium carbonate and sodium sulfate from bayer solutions. 3,508,884, 4-28-70, Cl. 23-302.

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Ostendorf, Philip J. Multi-level building. 3,529,386, 9-22-70, Cl. 52-79.

Oster, Charles; and Losert, Gerhard K., to General Electric Company. Clock and interval timer apparatus. 3,534,545, 10-20-70, Cl. 58-21.14

Oster, Clark L., to Square D Company. Visible blade load break switch. 3,538,273, 11-3-70, Cl. 200-67.

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Pacific Research and Development Corporation: *See—*
Wahler, Leon P.; and Rore, Walter J., 3,487,850.

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Pacific Scientific Company: *See—*
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Pacific Vegetable Oil Corporation: *See—*
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Pacific Western Extruded Products, Inc.: *See—*
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Pacini, August J., to Purex Corporation, Ltd. Detergent composition. 3,532,636, 10-6-70, Cl. 252-161.

Pacini, August J., to Purex Corporation, Ltd. Cobalt dodecenedioate and use thereof. 3,542,826, 11-24-70, Cl. 260-439.

Pacini, Pier Luigi, to Geigy Chemical Corporation. O-acrylyl- and O-methacrylyl amidoximes. 3,493,614, 2-3-70, Cl. 260-564.

Pacini, Pier Luigi: *See—*
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Pacitti, Peter. Replaceable blade scissors. 3,533,162, 10-13-70, Cl. 30-260.

Pack, Douglas H.; Ursenbach, Wayne O.; and Hatton-Ward, Frank. Packaging for slurry explosives. 3,504,628, 4-7-70, Cl. 102-24.

Pack-Co., Inc.: *See—*
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Package Machinery Company: *See—*
Kamila, Friedolf; Chase, Earle M.; and Barkman, David R., 3,501,026.
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Packaged Power Terminals Inc.: *See—*
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Bambara, John D., 3,527,368.
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Packard, Edward L., to Singer-General Precision, Inc. Analog-to-digital encoder. 3,540,036, 11-10-70, Cl. 340-347.

Packard Instrument Company, Inc.: *See—*
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Packer, Herbert; and Foulks, William S., Jr., to Little, Arthur D., Inc. Sampling device. 3,496,777, 2-24-70, Cl. 73-422.

Packer, Luther N.: *See—*
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Packer, Martin Richard. Hydropneumatic accumulator. 3,537,357, 11-3-70, Cl. 92-90.

Packer, Mervyn B.: *See—*
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Packman, Percival James; and Walker, Hubert Beresford, to Stewarts and Lloyds Limited. Tubular structures. 3,507,526, 4-21-70, Cl. 287-54.

Packman, Percival J.; and Walker, Hubert B., to Stewarts and Lloyds Limited. Method of assembling tubular structures. 3,528,164, 9-15-70, Cl. 29-468.

Pactide Corporation: *See—*
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Padalino, Marco; Krajewski, William F.; and Nagakura, Hiroshi, to International Business Machines Corporation. Coded data storage and retrieval system. 3,500,385, 3-10-70, Cl. 340-347.

Padawer, Jacques, to Technicon Corporation. Flow cell immersed in a fluid having the same refractive index as the flow cell. 3,529,896, 9-22-70, Cl. 356-181.

Padberg, Louis R., Jr. Method and apparatus for conducting seismic explorations from aircraft. 3,514,749, 5-26-70, Cl. 340-15.5

Padday, John Frank, to Eastman Kodak Company. Coating of gelatin silver halide photographic emulsions. 3,516,844, 6-23-70, Cl. 117-34.

Padden, Frederick W.: *See—*
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Paddington, Arthur Loftus, to Dracone Developments Limited. Pipe coupling. 3,502,298, 3-24-70, Cl. 251-149.9

Paddison, Eric; and Gillies, John McGill, to English Electric Company Limited, The. Electrical protective relays. 3,519,884, 7-7-70, Cl. 317-27.

Paddison, Eric; Gillies, John McGill; Clegg, David; and Williams, Anthony, to English Electric Company Limited, The. Electrical protective relay circuits. 3,524,106, 8-11-70, Cl. 317-27.

Paddock, Byron, Jr., to Caterpillar Tractor Company. Quench apparatus for providing pulsating and sweeping flow of quench fluid. 3,517,676, 6-30-70, Cl. 134-199.

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Paddock, David A.; and Kemp, Carrol B., to Air Preheater Company, Inc., The. Method of making a plate-type heat exchanger. 3,537,165, 11-3-70, Cl. 29-157.3

Paddock of California, Inc.: *See—*
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Pader, Morton; and Martin, Donald Jay, to Lever Brothers Company. Two-phase liquid detergent compositions. 3,533,955, 10-13-70, Cl. 252-153.

Pader, Morton; and Wiesner, Wilfried, to Lever Brothers Company. Oral compositions containing silica xerogels as cleaning and polishing agents. 3,538,230, 11-3-70, Cl. 424-50.

Paderwerk Gebr. Benteler: *See—*
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Bick, Klaus; Weinreich, Wolfgang; and Harmsen, Lothar, 3,515,202.

Padgett, Edward D., to United States of America, Army. Semiconductor control circuit. 3,539,822, 11-10-70, Cl. 307-252.

Padgett, Edward D., to United States of America, Army. Logic circuit for use with adaption kits and like missile devices. 3,539,833, 11-10-70, Cl. 307-252.

Padgett, Henry A., Sr. Adjustable cultivator shoe mounting device. 3,519,086, 7-7-70, Cl. 172-763.

Padgett, Henry A., Sr. Cultivator arm. 3,537,532, 11-3-70, Cl. 172-741.

Padgett, John W.; and Prophet, James, Jr., to Moore & Munger. Composite contoured carpets for automobiles and the like and method for making the same. 3,525,662, 8-25-70, Cl. 161-67.

Padgett, Webster H.: *See—*
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Padgett, Weldon M., II; and Hyman, Julius. Naphthoxathioles. 3,528,992, 9-15-70, Cl. 260-327.

Padilla, John Arthur, to British Welding Research Association. Friction welding. 3,538,592, 11-10-70, Cl. 29-470.3

Padley & Venables Limited: *See—*
Fowler, Michael John Henry, 3,520,565.

Padovani, Henry R.; and Smith, Roy E., to Auto-Soler Company, The. Shank sanding guide assembly. 3,535,724, 10-27-70, Cl. 12-103.

Padowicz, Miron. Tracing board. 3,497,970, 3-3-70, Cl. 35-66.

Padrta, Frank G., to Universal Oil Products Company. Sample introduction system for mass spectrometer analysis. 3,500,040, 3-10-70, Cl. 250-41.9

Paduch, Stanley R., to United Aircraft Corporation. Fuel control deceleration mode. 3,513,899, 5-26-70, Cl. 60-39.27

Padula, Lawrence D., to Skinner Precision Industries, Inc. Solenoid controlled four-way valve. 3,523,555, 8-11-70, Cl. 137-625.64

Paeco, Inc.: *See—*
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Paehr, Hans Werner. Process for the extension of the effective surface of aluminium electrodes or foils for electrolytic capacitors. 3,520,788, 7-14-70, Cl. 204-141.

Paelian, Owen. Vehicle weighing system. 3,533,481, 10-13-70, Cl. 177-134.

Paepke, Horst; and Martinetz, Johann, to Mayer & Cie. Cam systems for circular knitting machines. 3,490,252, 1-20-70, Cl. 66-57.

Paffrath, Edgar, to General Motors Corporation. Constrictive connector for hose. 3,508,572, 4-28-70, Cl. 137-231.

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Pagan, George J.: *See—*
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Paganelli, Claudio. System for artificially seeing in three dimensions without using glasses or other interpreting means. 3,515,454, 6-2-70, Cl. 350-137.

Paganelli, Guido: *See—*
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Pagani, Mario: *See—*
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Pagdin, Brian Colin: *See—*
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Page & Page: *See—*
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Fikse, Tyman H., 3,542,390.

Page and Cox: *See—*
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Page, Calvin B., to Gulf & Western Industrial Products Company. Cross-roll straightener drive assembly. 3,540,251, 11-17-70, Cl. 72-99.

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Page, Derrick J., to Westinghouse Electric Corporation. Tuning integrated circuit comprising a layer of piezoelectric material above a semiconductor body. 3,548,346, 12-15-70, Cl. 333-72.

Page, Donald F., to Sterling Drug Inc.Perhydrocyclopenta[1,2-C-3,4-C] dipyrroles. 3,551,447, 12-29-70, Cl. 260-326.3

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Page, Eric John: *See—*
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Page, Eric John; and White, Trevor Raymond, to Imperial Chemical Industries Limited. Process for production of finely divided calcium fluoride. 3,529,929, 9-22-70, Cl. 23-88.

Page, Eugene S., to Bell Telephone Laboratories, Incorporated. Clock pulse failure detector. 3,496,477, 2-17-70, Cl. 328-120.

Page, Eugene S., to Bell Telephone Laboratories, Incorporated. Parity determining circuit using a tandem arrangement of hybrid junctions. 3,510,840, 5-5-70, Cl. 340-146.1

Page, John A.; and Bauer, Walter G., to General Mills, Inc. Process for preparing a flavored fibrous protein product containing a high fat content. 3,488,197, 1-6-70, Cl. 99-17.

Page, John A.; and Dechaine, Robert C., to General Mills, Inc. Method and apparatus for producing simulated meat. 3,498,793, 3-3-70, Cl. 99-17.

Page, John S., Jr., to Cook Testing Co. Tubing to tubing flow controlling retrievable sub-surface valve. 3,497,004, 2-24-70, Cl. 166-224.

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Page, Peter Bernard, to International Standard Electric Corporation. Temperature compensating unit for crystal oscillators. 3,503,010, 3-24-70, Cl. 331-176.

Page, Robert M., to United States of America, Navy. Random modulation obstacle locator system. 3,519,985, 7-7-70, Cl. 340-3.

Page, Roy L. Manure shredder. 3,499,608, 3-10-70, Cl. 241-101.

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Page, Wilbur Mills: *See—*
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Page, Wilbur M.; and Coupland, Ralph, to Dewandre, Clayton, Company Limited. Dual brake valves. 3,507,545, 4-21-70, Cl. 303-52.

Page, Wilbur M.; and Coupland, Ralph, to Clayton Dewandre Company Limited. Fluid pressure operated clutch and gears with interclock. 3,522,867, 8-4-70, Cl. 192-3.5

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Pagliuso, Robert J. Camera attachment for tripods. 3,549,113, 12-22-70, Cl. 248-187.

Pagni, Georges: *See—*
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Pagnozzi, Vincenzo. Process and plant for the vacuum drying of wood in the form of planks or laths. 3,521,373, 7-21-70, Cl. 34-165.

Pagones, John N.; and St. Amand, Elmer F., to American Hospital Supply Corporation. Needle assembly for parenteral liquid container. 3,523,530, 8-11-70, Cl. 128-214.

Pahl, John G. Pole-mounted air-break disconnect switch. 3,515,823, 6-2-70, Cl. 200-48.

Pahl, Leo F.; and Jones, Norman H., to Crown Cork & Seal Company, Inc. Carbonating system. 3,534,944, 10-20-70, Cl. 261-62.

Pahlavan, Marcel A., to Aerospace Products Research Corporation. Display apparatus. 3,548,254, 12-15-70, Cl. 315-169.

Pahlitzsch, Bruno. Process and machine for the automatic production of closed, letter-like objects formed by means or roll-folding. 3,511,013, 5-12-0, Cl. 53-14.

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Paice, Derek A.; and Rosa, John, to Westinghouse Electric Corporation. System for recovering slippage power in slip ring induction motors. 3,526,816, 9-1-70, Cl. 318-226.

Paidosh, Richard L., to Minnesota Mining and Manufacturing Company. Apparatus for recording and retrieving information by the use of X-rays. 3,527,943, 9-8-70, Cl. 250-65.

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Paige, Hilliard W.; and Moyer, Ronald G., to General Electric Company. Longitude keeper. 3,516,622, 6-23-70, Cl. 244-1.

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Paige, John L.; and DiPalma, Sebastian M., to Uniroyal, Inc. Olefin polymerization process. 3,523,929, 8-11-70, Cl. 260-80.78

Paige, Richard E., to Paige Company Containers, Inc., The. Collapsible carton and blank for forming it. 3,501,081, 3-17-70, Cl. 629-39.

Paige, Richard E. One-piece straight line edge paperboard tray. 3,543,992, 12-1-70, Cl. 229-16.

Paige, Walter Giffin, to Burroughs Corporation. High-speed pneumatic valve. 3,498,330, 3-3-70, Cl. 137-625.65

Paige, Walter Griffin, to Burroughs Corporation. Manually adjustable pneumatic cartridge. 3,543,790, 12-1-70, Cl. 137-594.

Paige, Walter Griffin; and Saklem, Samuel J., to Burroughs Corporation. Optical system. 3,526,446, 9-1-70, Cl. 350-110.

Paikin, Frank Robert. Diaper clip. 3,531,835, 10-6-70, Cl. 24-250.

Paillard S.A.: *See—*
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Paine, Bud A.; and Trautmann, Paul R., to Spectrol Electronics Corporation. Variable resistor and method of making same. 3,531,860, 10-6-70, Cl. 29-610.

Paine, David L., to Honeywell Inc. Attitude gyroscope. 3,528,300, 9-15-70, Cl. 74-5.7

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Painter, Charles D., to Armstrong Cork Company. Invisible seaming technique for a monolithic flooring. 3,504,469, 4-7-70, Cl. 52-315.

Painter, David G., Sr., to United States of America, Army. Solderless mechanical circuit board connector. 3,496,515, 2-17-70, Cl. 339-17.

Painter, Delbert J., to General Electric Company. Carton inner flap support. 3,522,906, 8-4-70, Cl. 229-37.

Painter, Phillip, to Jenn-Air Corporation. Cover for roof ventilator. 3,520,093, 7-14-70, Cl. 52-200.

Painter, Phillip, to Jenn-Air Corporation. Relief and intake air vent for building roofs. 3,520,245, 7-14-70, Cl. 98-42.

Painton, Richard C., to Eastman Kodak Company. Motion picture projector system. 3,533,688, 10-13-70, Cl. 352-92.

Paisley, Douglas A.; and Schroeder, Michael J. Horizontal leaf dry cake discharge filter. 3,494,467, 2-10-70, Cl. 210-241.

Paisley Products, Inc.: *See—*
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Paiste, Robert, to R. & T. Paiste KG Gong and Cymbal Production. Cymbal. 3,546,994, 12-15-70, Cl. 84-402.

Paitchell, Harold, to Emerson Electric Co. Methods and apparatus for shaping workpieces. 3,490,258, 1-20-70, Cl. 72-81.

Paitich, Ronald M.; and Moran, John F., to Varian Associates. Field scanned gyromagnetic resonance spectrometer employing field tracked double resonance. 3,500,178, 3-10-70, Cl. 324-0.5

Paiton, Harold K., to Sinclair Research, Inc. Anode structure. 3,497,444, 2-24-70, Cl. 204-196.

Paivinen, John O., to Burroughs Corporation. Magnetic switching circuit. 3,502,898, 3-24-70, Cl. 307-88.

Pajak, Henry C.: *See—*
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Pajak, Witold, to Remco Industries, Inc. Doll with growing tooth. 3,535,818, 10-27-70, Cl. 46-137.

Pak-Mor Manufacturing Co.: *See—*
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Pak-Well Corporation: *See—*
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Pako Corporation: *See—*
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Prchal, Gordon L.; and Kulus, Richard W., 3,512,981.
Savela, Edward H., 3,513,519.
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Paksi, Joseph. Electrophoresis system and method. 3,497,441, 2-24-70, Cl. 204-180.

Paksy, Jeno, to Frankenplastik Vertriebs GmbH & Co., KG. Resiliently coupled abutting members disposable in plural stable configurations. 3,514,893, 6-2-70, Cl. 46-1.

P.A.L. Development Corporation: *See—*
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Probst, John F., 3,542,433.

Pala, Gianfranco, to Instituto de Angeli, S.p.A.Disodium 4,4'-disulphoxydiphenyl-(2-pyridyl)-methane. 3,528,986, 9-15-70, Cl. 260-294.8

Paladino, Anthony M.: *See—*
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Paladino, Patrick P. Fuel log producing apparatus. 3,506,415, 4-14-70, Cl. 44-13.

Palage, Carl. Stabilizing means for a trailer. 3,542,394, 11-24-70, Cl. 280-406.

Palagyi, Tivadar: *See—*
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Palaika, Thomas, to PPG Industries, Inc. Use of oxides of manganese in electrodepositable compositions. 3,531,391, 9-29-70, Cl. 204-181.

Palamidessi, Giorgio: *See—*
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Palange, Walter, to Gusken, Jean. Flat warp knitting machine and guide needles therefor. 3,522,716, 8-4-70, Cl. 66-87.

Palange, Walter, to Gusken, Jean. Process and device for shooting in filling yarns for warp knitting machines. 3,529,443, 9-22-70, Cl. 66-86.

Palatinus, Anthony C. Means for generating a two-tone signal. 3,500,227, 3-10-70, Cl. 331-18.

Palatinus, Anthony C. Means for generating a double sideband suppressed carrier AM wave. 3,500,228, 3-10-70, Cl. 331-39.

Palatinus, Anthony C. Quadrature select, multichannel independent sideband system. 3,514,701, 5-26-70, Cl. 325-50.

Palatinus, Anthony C. Complementary paring of ISB modulation and analysis methods. 3,523,249, 8-4-70, Cl. 325-49.

Palazzo, Giuseppe; and Silvestrini, Bruno, to Angelini Francesco-Aziende Chimiche Riunite S.N.C. 2-Phenyl-5-tertiaryamino alkyl-1,3,4-oxadiazoles. 3,502,668, 3-24-70, Cl. 260-247.5

Palazzolo, Jack; and Fama, Thomas. Collapsible road marker. 3,520,235, 7-14-70, Cl. 94-1.5

Palazzolo, Sam: *See—*
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Palco Hats Inc.: *See—*
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Palen, Richard L., to Clark Equipment Company. Landing Gear assembly. 3,526,414, 9-1-70, Cl. 280-150.5

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Palermo, Frank P: *See—*
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Palermo, James J.; and Bottone, Arthur A., to Westinghouse Electric Corporation. Single-ended electric incandescent lamp and mount assembly therefor. 3,496,403, 2-17-70, Cl. 313-222.

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Palermo, Santo; and Moreno, Rogelio, said Moreno, assor to said Palermo. Douching attachment. 3,513,487, 5-26-70, Cl. 4-7.

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Palevsky, Sam, Hardware Company, The: *See—*
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Palfreyman, Jack, to Rolls-Royce Limited. Method of making a bladed rotor member for a fluid flow machine. 3,505,717, 4-14-70, Cl. 29-156.8

Palfreyman, Jack; and Middleton, Henry Edward, to Rolls-Royce Limited. Rotor blade assembly. 3,515,501, 6-2-70, Cl. 416-193.

Palfreyman, Jack; and Middleton, Henry Edward, to Rolls-Royce Limited. Aerofoil-shaped blades, and blade assemblies, for use in a fluid flow machine. 3,532,438, 10-6-70, Cl. 416-213.

Palfreyman, Jack; and Middleton, Henry Edward, to Rolls-Royce Limited. Fibrous reinforced bladed rotor. 3,532,439, 10-6-70, Cl. 416-213.

Pali, Christopher; and Bryer, Jack, to Talcott, James, Inc., mesne. Method and apparatus for contouring a rotogravure doctor blade. 3,521,561, 7-21-70, Cl. 101-169.

Palich, William E. Continuous reading venous manometer for injecting parenteral fluids. 3,533,400, 10-13-70, Cl. 128-2.05

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Sawarski, Jerzy; Gebicki, Zbigniew; Raczka, Zbigniew; Palik, Jozef; and Waclaw, Pawel,3,502,235.

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Palino, Raymond D.: *See—*
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Barrett, Cedric A.; and Newell, James J., 3,496,838.
Cooper, Roydon B., 3,508,657.
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Keedwell, Cyril A., 3,520,416.
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Riely, Phyllis; and Adiletta, Joseph G., 3,503,497.
Rosenberg, David, 3,523,408.
Seibert, Chesterfield F.; and Verrando, Marcel G., Jr., 3,513,631.

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Barke, John L.; Du Vivier, Charles L.; Odion, John R.; and Pallat, Ludwig R.,3,518,622.
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Pallay, Louis, to Sperry Rand Canada Limited. Machine tool work loading and unloading apparatus. 3,550,503, 12-29-70, Cl. 90-11.

Palleniko, Benjamin, to Sanders Associates, Inc. Pulsed coherent oscillator. 3,546,631, 12-8-70, Cl. 331-172.

Palleon Electronics Limited: *See—*
Zorn, Eugene K., 3,523,305.
Zorn, Eugene K., 3,524,068.
Zorn, Eugene K., 3,541,614.

Pallie, Alan. Safety protective discs for phonograph records. 3,540,736, 11-17-70, Cl. 274-1.

Pallmann, Wilhelm. Comminuting machine for comminuting chippable material, especially wood, into chips of predetermined size. 3,549,093, 12-22-70, Cl. 241-49.

Pallos, Ferenc M.; and Pavlath, Attila E., to Stauffer Chemical Company. Process for preparing chlorofluoromethanes. 3,499,943, 3-10-70, Cl. 260-653.

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Palm Beach Company, The: *See—*
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Palm, Richard A.: *See—*
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Palm, Ulf: *See—*
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Palma, James R. Clothing for cooling or heating body. 3,507,321, 4-21-70, Cl. 165-46.

Palma, James R. Valve for containers. 3,511,407, 5-12-70, Cl. 220-44.

Palmateer, Joseph L. Gear handling device. 3,489,305, 1-13-70, Cl. 214-620.

Palmatier, Everett P. Absorption refrigeration system. 3,524,716, 8-18-70, Cl. 417-490.

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Palmer, Allan M., to Eastman Kodak Company. Film stripping mechanism. 3,550,880, 12-29-70, Cl. 242-192.

Palmer, Ansell W., to General Electric Company. Ticket handling and storage mechanism especially useful in automatic fare collection systems. 3,530,968, 9-29-70, Cl. 194-4.

Palmer, Basil Stoddard. Band tensioning tool. 3,508,740, 4-28-70, Cl. 254-51.

Palmer, Burtis E., to Western Electric Company, Incorporated. Magnetic electrical test probes and method therefor. 3,515,989, 6-2-70, Cl. 324-72.5

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Palmer, Charles E., to Jones & Laughlin Steel Corporation. Tear tape construction. 3,519,193, 7-7-70, Cl. 229-51.

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Palmer, Elmer W.: *See—*
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Palmer, Gaylord M.: *See—*
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Palmer, George R. Racker with metal frame welded to handle sleeve. 3,540,728, 11-17-70, Cl. 273-73.

Palmer, Gerald W.; and Beach, Rex E., to Skil Corporation. Flexible shaft coupler. 3,505,831, 4-14-70, Cl. 64-4.

Palmer, Ivan: *See—*
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Palmer, James L., to Advanced Devices Laboratory, Inc. Partitioned horn antenna with pattern shaping adjustment. 3,530,482, 9-22-70, Cl. 343-786.

Palmer, John A. Power saw blade guard. 3,519,041, 7-7-70, Cl. 143-159.

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Palmer, John S., to International Harvester Company. Automatic adjustor for disc brakes. 3,532,190, 10-6-70, Cl. 188-72.

Palmer, Judson G.; and Smayling, Michael. Control apparatus for internal-combustion engines. 3,548,792, 12-22-70, Cl. 123-32.

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Palmer, Kenneth Percival, to Lucas, Joseph, (Industries) Limited. Oscillators. 3,489,176, 1-13-70, Cl. 137-624.14

Palmer, Kenneth Percival, to Lucas, Joseph, (Industries) Limited. Means for producing pulsating fluid flow. 3,511,258, 5-12-70, Cl. 137-81.5

Palmer, Kenneth Percival, to Lucas, Joseph, (Industries) Limited. Temperature sensing apparatus. 3,515,002, 6-2-70, Cl. 73-357.

Palmer, Lawrence Merrill; and Phillips, Robert A., to Motorola, Inc. Starting circuit for transistor inverters, blocking oscillators, and the like. 3,528,031, 9-8-70, Cl. 331-113.

Palmer, Leon B.; and Conger, Robert P., to Congoleum Industries, Inc., mesne. Vinyl chloride polymer and platy talc compositions and processes for their preparation. 3,502,611, 3-24-70, Cl. 260-41.

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Palmer, Myron N., to Gulf Research & Development Company. Methods and apparatus for detecting leaks. 3,500,676, 3-17-70, Cl. 73y40.5

Palmer, Nathan H. Multi-purpose garment. 3,522,612, 8-4-70, Cl. 2-88.

Palmer, Norbert James, to Monogram Industries, Inc. Toilet system for trailers. 3,537,590, 11-3-70, Cl. 210-359.

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Palmer, Robert A., to Korblock Corporation. Method for making an encased steel building block. 3,526,946, 9-8-70, Cl. 29-403.

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Palmer, Victor E., to Wrapping Machinery Company, Inc. Portable rotary accumulation. 3,536,336, 10-27-70, Cl. 280-47.34

Palmer, Walter M.; Giroux, Joseph Charles Aime; and Speak, Richard, to Chemcell Limited-Chemcell Limitee. Apparatus for producing textile filaments and yarns by melt extrusion. 3,491,405, 1-27-70, Cl. 18-8.

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Palmieri, John P. Water ski tow line retrieve. 3,498,563, 3-3-70, Cl. 242-86.5

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Pals, Herbert T.; and Rietveld, Cornelius R. Method of lye-peeling onions. 3,529,971, 9-22-70, Cl. 99-103.

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Palumbo, Benito; Zaccagnini, Corrado; and Teofilato, Antonio, to Selenia-Industrie Elettroniche Associate S.p.A. Linear slot antenna with V-shaped lens at aperture. 3,496,568, 2-17-70, Cl. 343-753.

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Palyi, Leslie; and Pora, Nicholas. Grinding element. 3,545,513, 12-8-70, Cl. 146-182.

Palynchuk, Alexander; and Paplinski, Walter, to Corod Manufacturing Ltd. Transport reel. 3,504,866, 4-7-70, Cl. 242-86.5

Pamarco, Inc.: *See—*
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Pammer, Erich; and Christ, Hans, to Siemens Aktiengesellschaft. Method for doping semiconductor crystals with phosphorus. 3,540,951, 11-17-70, Cl. 148-189.

Pammer, Erich; and Folkmann, Eduard, to Siemens Aktiengesellschaft. Method of producing homogeneous oxide layers on semiconductor crystals. 3,518,115, 6-30-70, Cl. 117-213.

Pammer, Erich; and Maly, Dieter, to Siemens Aktiengesellschaft. Method of producing a water-insoluble germanium oxide coating at the surface of a germanium crystal. 3,525,650, 8-25-70, Cl. 148-6.14

Pammer, Gottfried, to Vockenhuber, Karl, and Hauser, Raimund. Film-feeding mechanism for cartridge-loaded motion picture apparatus. 3,551,037, 12-29-70, Cl. 352-72.

Pamphilis, Nicholas C.; and Kivlen, John A., to Esso Research and Engineering Company. Coke prevention in steam cracking. 3,527,832, 9-8-70, Cl. 260-683.

Pampus, Gottfried; Schon, Nikolaus; and Witte, Josef, to Farbenfabriken Bayer Aktiengesellschaft. Treatment of diene elastomers with boron compounds. 3,520,865, 7-21-70, Cl. 260-92.3

Pampus, Gottfried; Vohwinkel, Kurt; Schon, Nikolaus; and Witte, Josef, to Farbenfabriken Bayer Aktiengesellschaft. Process for the production of oil-extended polybutadiene rubber. 3,541,032, 11-17-70, Cl. 260-5.

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Pan, Samuel C.; Principe, Pacifico A.; and Lerner, Leonard J., to Squibb, E. R., & Sons, Inc. Aromatized a-ring steroid. 3,546,260, 12-8-70, Cl. 260-397.45

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Panczner, James E., to Owens-Illinois, Inc. Moil severing method and apparatus. 3,510,287, 5-5-70, Cl. 65-113.

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Pannell, Dennis Alexander, to Rotax Limited. Rectifying arrangement for dynamo electric machines. 3,501,659, 3-17-70, Cl. 310-68.

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Pansmith, Inc.: *See—*
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Pantke, Heinz-Dieter; Pohl, Ulrich; Hickmann, Herbert; and Starossa, Werner, to Huttenwerk Oberhausen AG. Apparatus for charging shaft-type furnaces. 3,511,390, 5-12-70, Cl. 214-21.

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Papa, Paul H., to Westinghouse Air Brake Company. Frameless permissible dynamoelectric machine. 3,512,024, 5-12-70, Cl. 310-88.

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Papalexiou, Spyros, to Aeronix, Inc. Constant volume air heating and cooling unit. 3,522,841, 8-4-70, Cl. 165-103.

Papay, Andrew George; now by judicial change of name, to Mobil Oil Corporation. Lubricant compositions. 3,533,943, 10-13-70, Cl. 252-32.7

Papay, Andrew G., to Mobil Oil Corporation. Lubricants comprising alkyl phosphites and sulfurized olefins. 3,510,426, 5-5-70, Cl. 252-46.6

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Papero, Patrick V.; Kosmala, James M.; and Moore, Maurice S., to Allied Chemical Corporation. Vaporus polyisocyanate treatment of nylon shaped articles. 3,545,911, 12-8-70, Cl. 8-115.5

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Papetti, Stelvio, to Olin Mathieson Chemical Corporation. Hydroxy-substituted silicon-containing carboranes and neocarboranes. 3,497,540, 2-24-70, Cl. 260-448.2

Papetti, Stelvio; and Schroeder, Hansjuergen A., to Olin Mathieson Chemical Corporation. Dialkyltin and dialkylgermanium carborane polymers. 3,533,968, 10-13-70, Cl. 260-2.

Papetti, Stelvio; Schroeder, Hansjuergen A.; and Kongrpicha, Santad, to Olin Corporation. Fluoring-containing poly-M-carboranylenesiloxanes. 3,542,730, 11-24-70, Cl. 260-46.5

Papetti, Stelvio; Semenuk, Nick S.; and Schroeder, Hansjuergen A., to Olin Corporation. Poly-m-and p-carboranylenedisulfides. 3,531,443, 9-29-70, Cl. 260-79.
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Pappadis, Nicholas P., to Zenith Radio Corporation, mesne. Shadow mask supported by V-shaped springs having apices directed toward gun. 3,492,522, 1-27-70, Cl. 313-85.

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Pappadis, Nicholas P., to Zenith Radio Corporation. Low focus voltage electron gun for cathode-ray tubes. 3,501,668, 3-17-70, Cl. 315-16.

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Pappas, Lambros, to Verson Allsteel Press Company. Hydraulic press. 3,531,966, 10-6-70, Cl. 72-63.

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Papworth, Thomas H.; and Brothers, William C. Grain preservative method. 3,533,806, 10-13-70, Cl. 99-153.

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Paquette, Raymond E., to Pek Labs., Inc. Arc lamp with movable electrode for arc starting. 3,488,546, 1-6-70, Cl. 313-146.

Paquette, Raymond E., to Gevaert-Agfa N.V. Arc lamp construction. 3,518,480, 6-30-70, Cl. 313-288.

Paquette, Raymond E., to Varo, Inc., mesne. Two-piece arc electrode having a plurality of heat-conducting paths between the arc tip and the tip holder. 3,531,673, 9-29-70, Cl. 313-32.

Paquette, Raymond E., to Varo, Inc. Self-starting arc lamp. 3,531,680, 9-29-70, Cl. 314-34.

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Parker, Carlyle V., to United States of America, Navy. Directive response transponder system. 3,500,406, 3-10-70, Cl. 343-6.5
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Parker, Rollin J., to General Electric Company. Speaker magnet having curved preferred direction of magnetization. 3,550,051, 12-22-70, Cl. 335-231.
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Parkin, Bernard A., Jr.; Summers, Hugh B., Jr.; and Hedrick, Glen W., to United States of America, Agriculture. Diols from resin acids. 3,523,139, 8-4-70, Cl. 260-617.5

Parkin, Christopher; Hildon, Anthony M.; and Proctor, Peter J., to Laporte Chemicals Limited. Oxidation process. 3,531,519, 9-29-70, Cl. 260-524.
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Parks, John R.; and Davis, Charles H., to National Research Development Corporation. Electro-optical apparatus for recognizing printed or written characters. 3,521,236, 7-21-70, Cl. 340-146.3
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Parkyn, John Michael, to Marconi Instruments Limited. Linearising circuit arrangements for voltage- sensitive capacitance diodes. 3,519,954, 7-7-70, Cl. 331-177.
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Parlee, Norman A. D.; and Mahin, William E., to Kaiser Industries Corporation. Environmental control process for gaseously removing oxygen from liquid metals. 3,516,819, 6-23-70, Cl. 75-51.
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Done, Clifford Graham; Casey, Eric Ronald; and Pearson, Edward,3,502,918.
Pearson, Hazel, Handicrafts, Inc.: *See—*
Gick, James E., 3,530,558.
Pearson, Howard: *See—*
Malespina, Joseph J.; and Pearson, Howard,3,535,539.
Pearson, Irvin I., to Wesinghouse Electric Corporation. Divided screen display tube for store/non-store information presentation. 3,519,874, 7-7-70, Cl. 315-12.
Pearson, Irving M.; Orlovic, Milivoj; and Janning, John L., to National Cash Register Company, The. Differential adhesion process

for making high resolution thin film patterns. 3,532,540, 10-6-70, Cl. 117n212.
Pearson, John H.; and Chappelow, Cecil C., Jr., to Allied Chemical Corporation. Diarylsulfamyl fluorides and tetraarylsulfamides. 3,534,096, 10-13-70, Cl. 260-543.
Pearson, John Trevor: *See—*
Bartoszewicz, Jerzy Josef; Breuer, Miklos Moshe; and Pearson, John Trevor,3,533,417.
Pearson, John W., to Minnesota Mining and Manufacturing Company. Vibratory-rotary tumbler. 3,494,327, 2-10-70, Cl. 118-418.
Pearson, Kenneth Arthur; and Wright, Geoffrey Harry, to Rolls-Royce Limited. Aircraft. 3,489,377, 1-13-70, Cl. 244-58.
Pearson, Kenneth William: *See—*
Kerrigan, Vincent; and Pearson, Kenneth William,3,505,392.
Pearson, Kenneth W., to Exactor Sterling Limited. Fluid line self sealing coupling. 3,500,859, 3-17-70, Cl. 137-614.05
Pearson, Maxwell E., to Art Metal-Knoll Corporation. Furniture construction. 3,521,929, 7-28-70, Cl. 297-454.
Pearson, Melvin A. Variable eccentricity driver. 3,499,347, 3-10-70, Cl. 74-568.
Pearson, Michael Geoffrey, to Decca Limited. Navigational computing apparatus. 3,536,901, 10-27-70, Cl. 235-150.272
Pearson, Reinhold A. Partition assembly for carton packing. 3,511,404, 5-12-70, Cl. 217-31.
Pearson, Reinhold A. Apparatus for end-loading cartons. 3,513,623, 5-26-70, Cl. 53-61.
Pearson, Reinhold A. Gate means for carton loading apparatus. 3,536,179, 10-27-70, Cl. 198-26.
Pearson, Reinhold A. Apparatus for placing partitions between group articles. 3,541,759, 11-24-70, Cl. 53-157.
Pearson, Robert G., to Drilltrol. Air balanced oil well pumping system. 3,491,538, 1-27-70, Cl. 60-52.
Pearson, Robert S.: *See—*
Balke, Roy L.; and Pearson, Robert S.,3,505,729.
Pearson, Robert T.: *See—*
Dean, Harold L.; and Pearson, Robert T.,3,490,668.
Pearson, Ronald Ferguson; and Cooper, Roger William, to U.S. Philips Corporation, mesne. Magneto-optical device digital light deflection. 3,512,867, 5-19-70, Cl. 350-151.
Pearson, Roy E., to United States of America, Navy, mesne. Multichannel coherent amplitude recording and reproducing system. 3,548,112, 12-15-70, Cl. 179-100.1
Pearson, Rupert Beresford: *See—*
Looker, Edward Gibson; Pearson, Rupert Beresford; and Perrins, Lyle Eugene,3,536,660.
Pearson, Stephen Haswell, to Adrolic Engineering Company Limited. Stabilizing device for an articulated vehicle. 3,502,350, 3-24-70, Cl. 280-432.
Pearson, Vernon W.: *See—*
Herrstrum, Rudolph E.; and Pearson, Vernon W.,3,532,103.
Van Allen, Richard F.; and Pearson, Vernon W.,3,496,875.
Pearson, William J.: *See—*
Baker, Stephen R.; and Pearson, William J.,3,494,005.
Pearson, William Kenneth Jamieson, to British Aluminium Company Limited, The. Measurement of the shape and flatness of sheet or strip material. 3,499,306, 3-10-70, Cl. 72-17.
Pearson, William M., to General Valve Company, Inc. Valve control and actuating mechanism. 3,492,880, 2-3-70, Cl. 74-57.
Pearson, William S. Mushroom cutting machine. 3,537,495, 11-3-70, Cl. 146-81.
Pearson, William S., to Cypro Incorporated, mesne. High speed plastic bottle take-off and trimming. 3,548,695, 12-22-70, Cl. 83-24.
Pease, Alvah C.; and Pelton, Howard King, to American Machine & Foundry Company. Gas turbine noise attenuator. 3,511,337, 5-12-70, Cl. 181-52.
Pease, Charles C.; Ritter, Ralph K.; and Fay, Elliott J. Spud welding apparatus. 3,508,028, 4-21-70, Cl. 219-136.
Pease, John W. Detachable seat toilet. 3,550,164, 12-29-70, Cl. 4-236.
Pease, Mark H., to Jered Industries, Inc. Marine steering gear linkage. 3,548,774, 12-22-70, Cl. 114-162.
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Van Doorn, Donald W.; Pease, William C., III; Colquett, Jack L.; and Lange, Robert E.,3,548,744.
Peasley, John A., to Raven Industries, Inc. Tank fitting. 3,531,142, 9-29-70, Cl. 285-39.
Peat, Derek; and Sutton, Richard William Bicknell, to National Research Development Corporation. Stitch control utilizing means for counting number of stitches per unit running length of yarn. 3,550,400, 12-29-70, Cl. 66-82.
Peavey Company: *See—*
Dahle, Leland K., 3,503,753.
Pebbles, David Meade. Selective circuit connector. 3,509,356, 4-28-70, Cl. 307-42.
Peberdy, Roland, to Bentley Engineering Company Limited, The. Fabric draw-off mechanism. 3,500,664, 3-17-70, Cl. 66-150.
Peberdy, Roland, to Bentley Engineering Company Limited, The. Fabric controlling means for circular knitting machines. 3,527,065, 9-8-70, Cl. 66-14.
Pebler, Alfred, to Westinghouse Electric Corporation. Tungsten oxyhalide incandescent lamps. 3,541,378, 11-17-70, Cl. 313-222.
Pecak, Vaclav; Vit, Jaroslav; and Prochazka, Vladimir, to Ceskoslovenska akademie ved. Method of producing alkali metal borohydrides. 3,515,522, 6-2-70, Cl. 23-363.
Pecasse, Albertus H.; and Nelemans, Johannes E., to Stamicarbon N.V.Process for the purification of α-aminolactams. 3,536,700, 10-27-70, Cl. 260-239.3
Pece, Pietro: *See—*
Vaccari, Pietro; Palvarini, Attilio; De Vita, Mario; and Pece, Pietro,3,510,416.
Pececo Inc.: *See—*
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Pech, Allison E., to FMC Corporation. Apparatus for processing products in sealed containers. 3,511,168, 5-12-70, Cl. 99-360.
Pech, Allison E., to FMC Corporation. Article confining capsule. 3,536,225, 10-27-70, Cl. 220-8.
Pech, Franz; and Spahn, Peter, to Teves, Alfred, G.m.b.H. Vacuum-assist power brake. 3,548,595, 12-22-70, Cl. 60-54.6
Pechacek, Joseph H. Applicator apparatus attachable to a wheeled agricultural implement. 3,526,342, 9-1-70, Cl. 222-176.
Pechacek, Raymond E.; and Clay, Eugene J., to Hahn & Clay. Valves having releasable couplings for parts subjected to differential pressure. 3,529,807, 9-22-70, Cl. 251-218.
Pechamat, Jacques; Piazza, Henri; and Gouhier, Pierre, to French State represented by the Minister of Armed Forces, Ministérial Delegation of Weapons, Technical Delegation of Land Weapons, Manufacturing Workshops of Toulouse. Weapon firing system including a seismic and radiation responsive control. 3,509,791, 5-5-70, Cl. 89-135.
Pechar, Jaroslav: *See—*
Hoffmann, Zdenek; and Pechar, Jaroslav,3,507,548.
Pechard, Lucien, to Service d'Exploitation Industrielle des Tabacs et des Allumettes. Device for the direct reintroduction of cut end trimmings from cigar bunches and cigars in a cigar-making machine. 3,516,418, 6-23-70, Cl. 131-23.
Pechdo, Claude Ange Maurice: *See—*
Clery, Raymond Maurice; and Pechdo, Claude Ange Maurice,3,500,584.
Pechenick, William; and Gelblum, Gideon P., to United States of America, Interior. Removal of sulfates from brines. 3,547,579, 12-15-70, Cl. 23-38.
Pechenik, Stephen, to Paeco, Inc. Clip. 3,512,818, 5-19-70, Cl. 287-189.35
Pecherer, Benjamin: *See—*
Brossi, Arnold; and Pecherer, Benjamin,3,495,256.
Fellig, Josef; and Pecherer, Benjamin,3,489,784.
Pechiney-Compagnie de Produits Chimiques et Electrometallurgiques: *See—*
Bourbon, Regine; Guilhaudis, Andre; and Adenis, Daniel, 3,519,417.
Chambran, Jacquea, 3,491,828.
Chambran, Jacques, 3,498,364.
Duclaux, Daniel, 3,523,882.
Legendre, Andre; and des Rochettes, Henri, 3,522,006.
Mercier, Henri; and Cohen, Joseph, 3,545,923.
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Pechiney-Progil: *See—*
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Pechiney-Progil-Societe pour le Developpement et la Vente de Specialites Chimiques: *See—*
Nguyen, Thanh-Thuong; and Demozay, Daniel, 3,518,261.
Pechini, Maggio P.: *See—*
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Pechmann, Karl, to GAF Corporation. Antistatic photographic film. 3,547,643, 12-15-70, Cl. 96-87.
Pechmann, Karl, to GAF Corporation. Antistatic photographic film. 3,549,375, 12-22-70, Cl. 96-84.
Pechmann, Karl: *See—*
Mackey, E. Scudder; Pechmann, Karl; and Leary, Robert E.,3,551,152.
Pechurr, Natan Saulovich; and Pesin, Oleg Jurievich. Reactor for the decomposition of liquid hydrocarbons by the electric discharge process. 3,519,551, 7-7-70, Cl. 204-325.
Peck, Arthur C.; and Knapp, Roger E., to Monsanto Company. Apparatus for printing circular base containers. 3,538,845, 11-10-70, Cl. 101-38.
Peck, Arthur C.; and Usko, Alexander J., to Monsanto Company. Method for glossing labels. 3,510,341, 5-5-70, Cl. 117-46.
Peck, Daniel A., to United Aircraft Corporation. Hydraulic control valve. 3,516,444, 6-23-70, Cl. 137-625.69
Peck, David B., to Sprague Electric Company. Metallized electrical capacitor. 3,531,699, 9-29-70, Cl. 317-258.

Peck, David F.; McBride, Thomas J.; Palmer, Elmer W.; and Schwartz, Douglas A., to Nalco Chemical Company. Method of clarifying aqueous suspensions. 3,549,527, 12-22-70, Cl. 210-54.

Peck, Edwin C., to American Home Products Corporation. Display package for article of cutlery. 3,487,922, 1-6-70, Cl. 206-80.

Peck, John F.: *See—*
Darter, Cederick U.; and Peck, John F.,3,489,603.

Peck, Lawrence G.: *See—*
Lillibridge, Duane J.; and Peck, Lawrence G.,3,520,345.
Lillibridge, Duane J.; and Peck, Lawrence G.,3,539,108.

Peck, Merle F., to Valspar Corporation, The. Floor resurfacing spreader. 3,530,777, 9-29-70, Cl. 94-44.

Peck, Ralph E. Liquid gas storage system. 3,526,095, 9-1-70, Cl. 61-0.5

Peck, Robert M.; and Thompson, Edwin P., to Frank Edge Saw Manufacturing Company. Peeling machine. 3,537,342, 11-3-70, Cl. 82-101.

Peck, Victor F. C.: *See—*
Laird, William G.; Keys, Lyle O.; McClellan, Donald L.; Briggs, John A.; and Peck, Victor F. C.,3,488,439.

Pecka, Richard D., to Eaton Yale & Towne, Inc. Shower head. 3,547,353, 12-15-70, Cl. 239-460.

Peckenpaugh, Charles W.: *See—*
Strandine, Eldon J.; and Peckenpaugh, Charles W.,3,511,164.

Peckham, David G., to Trane Company, The. Condensate heating of intermediate strength solution in two stage absorption machine. 3,550,394, 12-29-70, Cl. 62-485.

Peckham, Rodney L., to Westinghouse Electric Corporation. Encapsulated electrical inductive apparatus. 3,548,357, 12-15-70, Cl. 336-205.

Peckham, Victor A., Jr. Oscillatable driving tool for screw fasteners. 3,534,791, 10-20-70, Cl. 145-76.

Pecor, James G.Pipe smoker's tobacco package. 3,545,449, 12-8-70, Cl. 131-3.

Pecora, Alphonso C.: *See—*
Helbing, Clarence H.; Bennett, Richard J.; Wilson, Frank E.; Pecora, Alphonso C.; Hay, Malcolm, Jr.; and Irwin, Winfield T.,3,538,956.

Pecoraro, Francis R., to Aerojet-General Corporation. Fastener tool. 3,550,484, 12-29-70, Cl. 81-54.

Pecoraro, Ralph R.; and Ablan, Michael M., Jr., to Universal Oil Products Company. Freezer-oven unit. 3,536,132, 10-27-70, Cl. 165-30.

Pecoraro, Raymond P.: *See—*
Agusta, Benjamin; Bardell, Paul H.; Castrucci, Paul P.; Henle, Robert A.; and Pecoraro, Raymond P.,3,508,209.
Langdon, Jack L.; and Pecoraro, Raymond P.,3,506,880.

Pecorella, James. Carpet securing means. 3,538,536, 11-10-70, Cl. 16-16.

Pecott, Clyde. Automobile ignition protection system. 3,524,989, 8-18-70, Cl. 307-10.

Pecs, William. Torque Reaction attitude control device. 3,526,795, 9-1-70, Cl. 310-74.

Peczeli, Charles F.; and Tyrcz, Edward T., to Gulf Oil Canada Limited. Two-stage sonic atomizing device. 3,510,061, 5-5-70, Cl. 239-8.

Peczeli, Charles F.; and Tyrcz, Edward T., to Gulf Oil Canada Limited. Two-stage sonic atomizing device. 3,537,650, 11-3-70, Cl. 239-405.

Peczkowski, Joseph L.; Dettweiler, Kenneth R.; and Rogers, Francis R., to Bendix Corporation, The. Combustion engine fuel control. 3,540,217, 11-17-70, Cl. 60-39.28

Peczkowski, Joseph L.; and Sollman, Francis G., to Bendix Corporation, The. Fuel control governor. 3,517,506, 6-30-70, Cl. 60-39.16

Pedain, Josef; Zenner, Karl-Friedrich; Oertel, Gunter; and Holtschmidt, Hans, to Farbenfabriken Bayer Aktiengesellschaft. Crosslinkable addition products prepared by reacting a monoisocyanate with an organic compound containing hydrogen atoms reactive with NCO groups. 3,522,218, 7-28-70, Cl. 260-77.5

Peddie, John G., to Foster, H. Dell, Co. Reversible binary coded decimal synchronous counter circuits. 3,544,773, 12-1-70, Cl. 235-92.

Peddinghaus, Carl Ullrich: *See—*
de Baan, Johannes Jasper; and Peddinghaus, Carl Ullrich,3,487,494.

Peddinghaus, Paul Ferd.: *See—*
Peddinghaus, Werner; and Regenbrecht, Ludwig, 3,546,993.

Peddinghaus, Werner; and Regenbrecht, Ludwig, to Peddinghaus, Paul Ferd. Locator for machine tools, especially for punch presses. 3,546,993, 12-15-70, Cl. 83-571.

Pede, Ephraim. Cultivating tool. 3,522,850, 8-4-70, Cl. 172-376.

Peden, Merle F.: *See—*
Benson, John O.; and Peden, Merle F.,3,539,356.

Pedersen, Anders N. Continuous feed apparatus for staining specimens carried on slides. 3,507,292, 4-21-70, Cl. 134-75.

Pedersen, Bjarne. Exhaust gas treatment. 3,545,201, 12-8-70, Cl. 60-30.

Pedersen, Bjorn, to De Danske Mejeriers Maskinfabrik A.m.b.A. Corner blocks for intermediate plates in plate heat exchangers. 3,511,311, 5-12-70, Cl. 165-78.

Pedersen, Carl. Apparatus for measuring the speed of an automobile. 3,532,042, 10-6-70, Cl. 95-36.

Pedersen, Egil. Mobile and turnable digging machine, crane or the like. 3,499,559, 3-10-70, Cl. 214-138.

Pedersen, Frank: *See—*
Falborg, Helge Jorgen; and Pedersen, Frank,3,524,297.

Pedersen, Hardy K. Skovgaard, to Danfoss A/S. Hydraulic steering system. 3,490,340, 1-20-70, Cl. 91-413.

Pedersen, Holger E.: *See—*
Scholin, Harold W.; and Pedersen, Holger E.,3,491,993.
Scholin, Harold W.; and Pedersen, Holger E.,3,510,117.

Pedersen, Jack Raymond, to Allied Chemical Corporation. Polyamide copolymers of aromatic amino acid and alicyclic amino acid. 3,509,105, 4-28-70, Cl. 260-78.

Pedersen, Jack R.: *See—*
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Pietrusza, Edward W.; and Pedersen, Jack R.,3,499,875.
Pietrusza, Edward W.; and Pedersen, Jack R.,3,519,699.
Pietrusza, Edward W.; and Pedersen, Jack R.,3,536,665.
Pietrusza, Edward W.; and Pedersen, Jack R.,3,544,527.
Pietrusza, Edward W.; Pedersen, Jack R.; and Prevorsek, Dusan C.,3,539,663.

Pedersen, Thomas H., to United States of America, Navy. Circuit for extending the linear operating range of log amplifiers. 3,509,368, 4-28-70, Cl. 307-230.

Pedersen, Walter: *See—*
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Pederson, Christ W.: *See—*
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Pedley, Eric L., to Pedley Knowles & Co. Safety net. 3,527,319, 9-8-70, Cl. 182-139.

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Pedley, Roger Martin: *See—*
Gurner, John Raymond; Fletcher, William Henry; and Pedley, Roger Martin,3,545,693.

Pedone, Michael J., Jr., to Black and Decker Manufacturing Company, The. Battery access hindle for cordless electric device. 3,494,799, 2-10-70, Cl. 136-173.

Pedrazzoli, Andrea; and Dall'Asta, Leone,to Societe d'Etudes de Recherches det d'Applications Scientifiques & Medicales E.R.A.S.M.E.N-(β-Alkoxy-β-phenyl-ethyl)-piperidine derivatives. 3,517,016, 6-23-70, Cl. 260-294.3

Pedretti, Alberto: *See—*
Karrer, Friedrich Wilhelm Johann; and Pedretti, Alberto,3,528,180.

Peebles, David Meade. Thin walled molded checker. 3,520,537, 7-14-70, Cl. 273-137.

Peebles, David Meade. Paint brush and solvent container. 3,527,341, 9-8-70, Cl. 206-15.2

Peebles, David Meade. Paper storage folder. 3,530,918, 9-29-70, Cl. 150-0.5

Peebles, David Meade. Two sided checker-board with recess-definning ribs. 3,531,122, 9-29-70, Cl. 273-136.

Peebles, David Meade. Checkerboard with recessed squares and pieces disposable therein. 3,531,123, 9-29-70, Cl. 273-136.

Peehs, Martin, to Siemens Aktiengesellschaft. Method of producing a solder-free gas-tight joint, and joint produced thereby. 3,502,837, 3-24-70, Cl. 219-9.5

Peehs, Martin; and Schorner, Heinz, to Siemens Aktiengesellschaft. Method of producing a metallic multilaminated tube. 3,532,476, 10-6-70, Cl. 29-25.13

Peek, Sandford C., to Sylvania Electric Products, Inc. Circuit for applying ionizing pulses and boosted alternating current to an arc discharge lamp. 3,508,112, 4-21-70, Cl. 315-240.

Peek, Sandford Christopher, Jr., to Sylvania Electric Products, Inc. Incandescent-fluorescent lamp. 3,521,122, 7-21-70, Cl. 315-99.

Peel, Eric. Tuyeres. 3,540,418, 11-17-70, Cl. 122-6.6

Peel, James R., to Conductive Research Corporation, The. Static discharging footwear. 3,544,841, 12-1-70, Cl. 317-2.

Peelle Company, The: *See—*
Karn, Eugene L., 3,535,842.

Peene, Guido, to Trefilieries Leon Bekaert, P.V.B.A. Packing case for sharp and oxidizable articles. 3,499,594, 3-10-70, Cl. 229-14.

Peeps, Donald J., to De Vilbiss Company, The. Airless dual component spray gun. 3,488,004, 1-6-70, Cl. 239-422.

Peeps, Donald J.; and McNinch, Joseph H., Jr., to De Vilbiss Company, The. Means for spraying fibers and resinous material. 3,504,861, 4-7-70, Cl. 239-300.

Peer, Herbert R., to Ferma Gro Corporation. Cultured whey product and process for producing the same. 3,497,359, 2-24-70, Cl. 99-9.

Peer, Stephen, to Ford Motor Company. Motor vehicle suspension. 3,497,235, 2-24-70, Cl. 280-124.

Peerless Chain Company: *See—*
Bambenek, Joseph B.; Malotke, George E.; Sadowski, Stephan E.; and Stokke, Arthur E., 3,501,817.

Peerless Instrument Co.: *See—*
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Peerless Manufacturing: *See—*
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Peerless Manufacturing Company: *See—*
Good, Robert Raphael, 3,520,116.
Horton, Wallace Elvin; and Dixon, Jim Ross, 3,490,210.

Peerless of America Incorporated: *See—*
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Pasternak, Stephen F., 3,490,524.
Pasternak, Stephen F., 3,546,763.

Peerman, Dwight E., to General Mills, Inc. Polyamida bis-N-alkyl piperazines. 3,505,335, 4-7-70, Cl. 260-268.

Peerman, Dwight E.; Vertnik, Leonard R.; and Rogier, Edgar R., to General Mills, Inc. Metallic structures. 3,550,806, 12-29-70, Cl. 220-81.

Pees, Richard W.: *See—*
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Peet, Richard C. Reclosable carton. 3,498,522, 3-3-70, Cl. 229-17.

Peeter, Henricus Hubertus: *See—*
van Stratum, Antonius Johannes Alberta; and Peeter, Henricus Hubertus,3,551,198.

Peeters, Andreas Michiel Cyriel Corneel: *See—*
De Raedt, Egide Jacob Hendrik; Peeters, Andreas Michiel Cyriel Corneel; and Debruyne, Pieter Adolf Mathildis,3,546,389.

Peeters, Gerardus F., to N.V. v/h P.J. Kipp & Zonen. Device for attaching the end of a strip of flexible material to be coiled to a take-up roll. 3,528,623, 9-15-70, Cl. 242-74.

Peeters, Henricus Hubertus: *See—*
Zalm, Pieter; Van Stratum, Antonius Johannes Alberta; and Peeters, Henricus Hubertus,3,497,757.

Peeters, Hubertus Lodewijk Petrus, to Douglas, Hunter, International Ltd. Universal assembling machine for the manufacture of stacks of slats for venetian blinds. 3,521,337, 7-21-70, Cl. 29-24.5

Peeters, Hubertus Lodewijk Petrus, to Douglas, Hunter, International Ltd. Machine for the manufacture of stacks of slats for Venetian blinds. 3,531,838, 10-6-70, Cl. 29-24.5

Peeters, Martinus F. Kiln for making cement clinker. 3,544,090, 12-1-70, Cl. 263-29.

Peetz, Hans Dieter, to Compagnie de Saint-Gobain. Thermal window. 3,532,858, 10-6-70, Cl. 219-522.

Peffer, John R.: *See—*
Gillery, Frank H.; Dvorak, Jacob A.; Rabenold, Ronald R.; and Peffer, John R.,3,549,478.

Peffer, Robert John; Waybright, George Cleveland; and Wheeler, Robert Charles, to Sylvania Electric Products, Inc. Automatic brightness control system. 3,542,944, 11-24-70, Cl. 178-5.2

Pefferman, Ernest B.: *See—*
Fawcett, Kenneth J., Jr.; Fuhr, William H.; Pefferman, Ernest B.; and Stone, William M.,3,517,176.

Pegasus Laboratories, Inc.: *See—*
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Pegg, Edward H. R.: *See—*
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Pegg, Samuel, & Son Limited: *See—*
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Peggy Munchener Kinderwagenfabrik GmbH & Co., KG: *See—*
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Pegram, Philip Hugh, to Dunlop Company Limited, The. Valves for controlling the flow of fluids. 3,536,292, 10-27-70, Cl. 251-30.

Pegrassi, Lorenzo: *See—*
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Pegues, Joseph R.: *See—*
Snow, William E.; and Pegues, Joseph R.,3,535,484.

Peifer, Albert G.; and Starr, Matthew C., to Hughes Aircraft Company. Monochromatic prism assembly for laser application. 3,515,464, 6-2-70, Cl. 350-286.

Peiffer, Joachim, to Langen & Co. Level regulated hydro-pneumatic spring suspension system for vehicles. 3,550,993, 12-29-70, Cl. 280-6.

Peil, William: *See—*
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Peil, William, to General Electric Company. High speed memory and multiple level logic network. 3,510,679, 5-5-70, Cl. 307-208.

Peilstocker, Gunter: *See—*
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Dietzel, Karl; Peilstocker, Gunter; and Siemonsen, Hans-Peter,3,549,476.

Peilstocker, Gunter; and Dietzel, Karl, to Farbenfabriken Bayer Aktiengesellschaft. Laminated safety panes of glass and polycarbonate using acrylic ester adhesives. 3,520,768, 7-14-70, Cl. 161-125.

Peine, Hans Georg: *See—*
Raff, Paul; Peine, Hans Georg; Schuster, Ludwig; and Adam, Karl,3,551,485.

Peiperl, Adam. Display device. 3,535,805, 10-27-70, Cl. 40-106.21

Peirez, Ben; Mindell, Marvin; and Komatsu, Masao, to Viewlex, Inc. Projector with film threading means. 3,490,837, 1-20-70, Cl. 352-159.

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Peitz, Albert. Telecommunications exchange systems. 3,529,077, 9-15-70, Cl. 178-3.

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Pelavin, Milton H., to Technicon Instruments Corporation. Multiple channel analysis apparatus having an auxiliary indicator. 3,534,379, 10-13-70, Cl. 346-17.

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Pellegrini, Umberto, to LABEN Laboratori Elettronici e Nucleari S.r.L. Apparatus for improving the differential linerarity of analog-to-digital converters. 3,531,797, 9-29-70, Cl. 340-347.
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Pernack, Frank; and Krygier, Edward Z., to Lear Siegler, Inc., mesne. Gear shaving cutter. 3,487,516, 1-6-70, Cl. 29-103.

Pernau, Franz, to Semperit Osterreichisch-Amerikanische Gummiwerke Aktiengesellschaft Tire tread analyzer utilizing scanning of tread model disposed on rotating drum. 3,535,536, 10-20-70, Cl. 250-219.

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Perner, Friedrich, to Siegener Maschinenbau G.m.b.H. Leveling machine. 3,492,852, 2-3-70, Cl. 72-164.

Perneski, Anthony J., to Bell Telephone Laboratories, Incorporated. Magnetic domain propagation arrangement. 3,518,643, 6-30-70, Cl. 340-174.

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Peronneau, Pierre, to Compagnie Generale d'Electricite. Catheter with piezoelectric transducer. 3,542,014, 11-24-70, Cl. 128-2.

Perotto, Pier Giorgio; and De Sandre, Giovanni, to Olivetti, Ing., C., & C., S.p.A. Program controlled electronic computer. 3,495,222, 2-10-70, Cl. 340-172.5

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Perras, Henry A., to Osley & Whitney, Inc. Cartridge heater for cold manifold mold. 3,499,189, 3-10-70, Cl. 18-30.

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Perreault, Donald A., to Xerox Corporation. Facsimile semi-automatic adjustable tapped delay line equalizer. 3,489,848, 1-13-70, Cl. 178-5.

Perreault, Donald A., to Xerox Corporation. Data channel equalization detector. 3,506,918, 4-14-70, Cl. 325-67.

Perreault, Donald A., to Xerox Corporation. Transmitted data timing recovery system. 3,512,093, 5-12-70, Cl. 328-139.

Perrella, Guido, to Dynacast Limited. Die casting machine with trimmer. 3,495,650, 2-17-70, Cl. 164-262.

Perrella, Guido, to Dynacast Limited. Die casting machine with cruciform die guide and pivotally mounted pot and nozzle. 3,495,652, 2-17-70, Cl. 164-316.

Perrelli, Joseph. Method of harvesting fruit. 3,496,705, 2-24-70, Cl. 56-1.

Perrelli, Joseph, to Filper Corporation. Drupe pitter and method. 3,520,341, 7-14-70, Cl. 146-238.

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Perret-Gentil, Gaston. Mixing valve. 3,519,020, 7-7-70, Cl. 137-625.17

Perret, Louis D., III. Alarm system. 3,537,093, 10-27-70, Cl. 340-274.

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Perri, John A.; and Riseman, Jacob, to International Business Machines Corporation. Method of providing protective coverings for semiconductors. 3,546,013, 12-8-70, Cl. 117-215.

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Perricone, Benjamin C. Cycle triggering mechanism for automatic pin setter. 3,514,104, 5-26-70, Cl. 273-43.

Perrill, Harlan Knox. Coin collection box. 3,542,283, 11-24-70, Cl. 232-1.

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Perrin, Duane O. Piston type valve with expandable seal. 3,529,804, 9-22-70, Cl. 251-63.5

Perrin, George S. Composite article having portions simulating wood. 3,494,308, 2-10-70, Cl. 108-150.

Perrin, George S. Artificial fishing lure. 3,497,987, 3-3-70, Cl. 43-42.28

Perrin, Henri, to Azolacq, Societe Chimique D'Engrais et de Produits de Synthese du Sud-Ouest. Bagging machines. 3,509,689, 5-5-70, Cl. 53-188.

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Perrin, William P.; and Gentle, Joe, to Texas Instruments, Incorporated. Method of making a protective element for hermetically enclosed semiconductor devices. 3,528,169, 9-15-70, Cl. 29-588.

Perrine, Walter E. Game prize with interlocking door entrance means and token dispenser. 3,516,663, 6-23-70, Cl. 273-1.

Perrine, Warren L. Apparatus for generating square roots, and square root integrator. 3,523,453, 8-11-70, Cl. 73-205.

Perrings, James D., to United States of America, Atomic Energy Commission. Electrode assembly for detecting particles in fluid suspension. 3,546,583, 12-8-70, Cl. 324-71.

Perrino, Albert C., to I.C.I./Organics/Inc. Vinyl ethyl ether or thioether sulfones. 3,517,068, 6-23-70, Cl. 260-607.

Perrins, Allen R., to Superior Electric Company, The. Rotative inductive electrical coupling. 3,535,618, 10-20-70, Cl. 323-50.

Perrins, Lyle Eugene: *See—*
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Perrone, Rosario J.; and Wade, Robert M., to Anaconda Wire and Cable Company. Extrusion method. 3,509,247, 4-28-70, Cl. 264-131.

Perronin, Jean; and Zogu, Iskender Galal, to Ugine Kuhlmann. Process for the coloring materials based on cellulose acetate employing, as carrier, cyanoalkylation products. 3,513,493, 5-26-70, Cl. 8-166.

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Perry, Albert, to Super Sagless Spring Corporation. Pullout sofa beds. 3,525,106, 8-25-70, Cl. 5-13.

Perry, Charles B., to Cincinnati Milacron, Inc. Manufacturing system. 3,530,571, 9-29-70, Cl. 29-563.

Perry, Charles B.; Bomkamp, Raymond L.; and Bone, Kendall F., to Cincinnati Milacron Inc. Machine tools having conveyor means extending therebetween and carrying pallet means which are selectively connectable to the machine tools. 3,543,392, 12-1-70, Cl. 29-563.

Perry, Charles B.; and Bone, Kendall F., to Cincinnati Milling Machine Machine Co., The. Motor. 3,513,752, 5-26-70, Cl. 91-35.

Perry, Charles B.; and Bone, Kendall F., to Cincinnati Milacron Inc. Connector system. 3,540,566, 11-17-70, Cl. 198-19.

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Perry, Donald M. Shadowless projection systems. 3,539,798, 11-10-70, Cl. 240-41.3

Perry, Edmond S., to Eastman Kodak Company. Apparatus for producing and processing viscous materials. 3,545,938, 12-8-70, Cl. 23-285.

Perry, Edward H.; Mackin, John P., Jr.; and Harwood, Kenneth J., to American Gas Association, Inc. Gas burner apparatus. 3,527,199, 9-8-70, Cl. 126-39.

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Perry, James G. Anchor for tiltable sash balancer. 3,521,320, 7-21-70, Cl. 16-197.
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Perry, John T.; and Gager, Robert M., to Dunlee Corporation. X-ray generator. 3,500,097, 3-10-70, Cl. 313-59.
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Perry, Mark J. Low pressure tire indicating mechanism. 3,527,189, 9-8-70, Cl. 116-34.
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Perry, Robert E. Method and apparatus for burning waste materials. 3,509,836, 5-5-70, Cl. 110-8.
Perry, Ronald A.; Baukol, Ronald O.; and Jacobsen, Ronald L., to Procter & Gamble Company, The. Ultramarine benzyl quaternary ammonium compound mixture in a granular bluing composition. 3,529,923, 9-22-70, Cl. 8-77.
Perry, Thomas R., to Texas Instruments, Incorporated. Method of making insulation structures for cross-over leads in inegrated circuitry. 3,508,325, 4-28-70, Cl. 29-577.
Perry, Walter J. Massaging apparatus. 3,529,593, 9-22-70, Cl. 128-56.
Perry, Wesley G., to Damon Engineering, Inc. Audible timing device. 3,522,701, 8-4-70, Cl. 58-130.
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Persidsky, Maxim D. Device for taking and projecting motion pictures. 3,504,964, 4-7-70, Cl. 352-105.
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Persson, Bertil J.; and Nissmo, Jim A., to Scan Coin AB. Clutch device. 3,487,902, 1-6-70, Cl. 192-56.
Persson, Henry. Quick-change vise. 3,520,527, 7-14-70, Cl. 269-73.
Persson, Henry. Setting gauge for work-holders. 3,524,262, 8-18-70, Cl. 33-185.
Persson, John A., to Union Carbide Corporation. Induction furnace apparatus for the manufacture of metal carbide. 3,504,093, 3-31-70, Cl. 13-26.
Persson, Karl Rune, to Sprinter Pack AB. Package, especially for food products. 3,550,835, 12-29-70, Cl. 229-31.
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Peschel, Stanley G., to Hipotronich, Inc. Method and apparatus for series resonant corona and dielectric testing of long lengths of high- voltage electrical transmission cable. 3,515,986, 6-2-70, Cl. 324-54.
Peschke, Gunter. Yarn tension releasing attachment for sewing machines. 3,500,781, 3-17-70, Cl. 112-254.
Peschke, Gunter. Yarn separating device for sewing machines. 3,524,420, 8-18-70, Cl. 112-252.
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Peter, Hans, deceased (by Veit, Manfred; administrator), to Konard Peter Aktiengesellschaft. Sealing device. 3,511,065, 5-12-70, Cl. 68-5.
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Peters, Charles J.; and Rattman, William J., to Sylvania Electric Products, Inc. Low drive power wideband optical modulator. 3,551,679, 12-29-70, Cl. 250-199.
Peters, Colin, to USM Corporation. Plasticator screws having non-return valve means. 3,550,208, 12-29-70, Cl. 18-30.
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Peters, Myron J.; and Peters, Collette I.,3,530,785.
Peters, David; Goodhart, Frank W.; and Lieberman, Herbert A., to Warner-Lambert Pharmaceutical Company. Sustained release dosage in the pellet form and process thereof. 3,492,397, 1-27-70, Cl. 424-20.
Peters, Derek W. A. General purpose stake. 3,534,751, 10-20-70, Cl. 135-15.
Peters, Donald F.Portable collapsible child's play enclosure. 3,550,601, 12-29-70, Cl. 135-4.
Peters, Donald J.; and Frazier, Richard J., to Campbell, Harry T., Sons Corporation. Concrete composition containing polymeric acrylic resin. 3,538,036, 11-3-70, Cl. 260-29.6
Peters, Donald J.; and Olseth, George E., to Campbell, Harry T., Sons' Corporation. Method for ballasting a vessel. 3,543,711, 12-1-70, Cl. 114-125.
Peters, Donald L.; and Hicks, Fred, to Phillips Petroleum Company. Two needle blow molding process and apparatus. 3,492,106, 1-27-70, Cl. 65-82.
Peters, Earl, to Deering Millken Research Corporation. Minimizing odor by adding methylol amides and methylol amines to reducing agent solutions used to treat wool. 3,519,383, 7-7-70, Cl. 8-127.6
Peters, Edwin F., to Standard Oil Company (Indiana). Polymerization with silver catalyst. 3,534,013, 10-13-70, Cl. 260-94.9
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Peters, Herman G., to Bucyrus-Erie Company. Hydraulic control circuit. 3,547,007, 12-15-70, Cl. 91-411.
Peters, Jack Rowland: *See—*
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Peters, James. Reforming device for eyeglasses temple bars. 3,507,171, 4-21-70, Cl. 81-3.5
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Peters, John E., to Chase Brass & Copper Co., Inc. Rhenium-refractory metal alloys. 3,503,720, 3-31-70, Cl. 29-182.
Peters, John Ernest: *See—*
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Peters, Joseph J.; and Mishkin, Abraham R., to Societe d'Assistance Technique pour Produits Nestle S.A. Process for preparing an alimentary paste product. 3,537,862, 11-3-70, Cl. 99-85.
Peters, Karl-Heinz; and Neeff, Rutger, to Farbenfabriken Bayer Aktiengesellschaft. 2-(or 3)-Bromo-(and 2,3-dibromo)-1,4,5-triamino-8-hydroxy-anthraquinones. 3,489,776, 1-13-70, Cl. 260-380.
Peters, Kathleen S. Abdominal muscular supporting girdle. 3,524,449, 8-18-70, Cl. 128-524.
Peters, Leo. Embossment packaging for soft foods. 3,529,976, 9-22-70, Cl. 99-179.
Peters, Loren William, to Deere & Company. Harvesting machine component drive. 3,525,269, 8-25-70, Cl. 74-227.
Peters Machinery Company: *See—*
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Peters, Norman J., to Dairy Equipment Company, mesne. Attempering and finishing unit for cultured sour cream. 3,518,759, 7-7-70, Cl. 31-2.
Peters, Norman J., to Dairy Equipment Company. Vertical cheese making unit. 3,541,687, 11-24-70, Cl. 31-47.
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Peters, Robert W., to Lincoln Tool and Manufacturing Company. Stator winding machine. 3,524,600, 8-18-70, Cl. 242-1.1
Peters, Ronald L., to Weck, Edward, & Company, Inc. Handle component for electro-surgical instrument. 3,494,364, 2-10-70, Cl. 128-303.17
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Peters, Thomas A. Normally retracted, controllably extendable protective cover for a motorcycle seat. 3,537,746, 11-3-70, Cl. 296-78.1
Peterschmidt, Paul L., to Diversificatation Development Inc. Modular free-span curvilinear structures. 3,488,901, 1-13-70, Cl. 52-81.
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Petersen, Arne J.; Taylor, John T.; and Rohrer, David Albert, to Beckman Instruments, Inc. Method of making electrochemical glass electrode assembly. 3,523,777, 8-11-70, Cl. 65-40.
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Petersen, Berthus, to N.V. v/h P. J. Kipp & Zonen. Electronic chopper utilizing a field effect transistor switch. 3,522,519, 8-4-70, Cl. 321-44.
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Petersen, Harro, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of cyclic urea derivatives. 3,538,094, 11-3-70, Cl. 260-251.
Petersen, Harro, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of propylenurea aldehydes. 3,538,096, 11-3-70, Cl. 260-251.
Petersen, Harro, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of amides substituted on the nitrogen atom. 3,551,423, 12-29-70, Cl. 260-251.
Petersen, Harro, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Production of 2-oxohexahydropyrimidines. 3,551,425, 12-29-70, Cl. 260-251.
Petersen, Harro; Bille, Heinz; and Ruemens, Wilhelm, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Hexahydropyrimidone derivatives. 3,502,672, 3-24-70, Cl. 260-251.
Petersen, Harro; Bille, Heinz; and Ruemens, Wilhelm, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Hexahydropyrimidone derivatives and a method of finishing textile material. 3,518,043, 6-30-70, Cl. 8-116.3
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Petersen, John Brammer, to Grace, W. R., & Co. Preparation of diazepam. 3,520,878, 7-21-70, Cl. 260-239.3
Petersen, John E. Gathering apparatus. 3,524,310, 8-18-70, Cl. 56-328.
Petersen, Jorgen Hartvig, to Danfoss A/S. Hydraulic fuel oil pump or the like. 3,491,697, 1-27-70, Cl. 103-126.
Petersen, Jorgen Hartvig; and Sturlason, Leif Viggo, to Danfoss A/S. Rotary seal, especially for oil pumps. 3,506,276, 4-14-70, Cl. 277-91.
Petersen, Jorgen Hartvig; and Sturlason, Leif Viggo, to Danfoss A/S. Cut-off valve for a heating oil supply installation. 3,527,246, 9-8-70, Cl. 137-512.2
Petersen, Joseph Claine, to Du Pont de Nemours, E. I., and Company. Bonded nonwoven sheets with a defined distribution of bond strengths. 3,502,538, 3-24-70, Cl. 161-150.
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Petersen, Povl Viggo; Hansen, Villy Halfdan; and Hjortkjer, Jes, to Kefalas A/S. 3,3-Dialkyl-1-phenyl-1-indanalkylamines. 3,505,404, 4-7-70, Cl. 260-570.8
Petersen, Povl Viggo; Lassen, Niels; and Ammitzboll, Thorkil, to Kefalas A/S. Antidepressant 1-aminoalkyl-thiophthalanes and acid addition salts thereof. 3,549,656, 12-22-70, Cl. 260-330.5
Petersen, Povl Viggo; Lassen, Niels; and Hjortkjer, Jes, to Kefalas A/S. Antidepressant amino-alkyl-substituted phthalanes, compositions and method of treating. 3,523,124, 8-4-70, Cl. 260-346.2
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Petersen, Roy A. Device for holding catheters in position. 3,487,837, 1-6-70, Cl. 128-349.
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Petersen, Rudolph S., to Sanders Associates, Inc. Gas driven gyroscope speed control. 3,511,101, 5-12-70, Cl. 74-5.7
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Petersen, Sigrud R.; and Spisak, Andrew J., to Westinghouse Electric Corporation. Spring mounted pressure diodes. 3,521,132, 7-21-70, Cl. 317-234.
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Petersen, Walter A., to International Nickel Company, Inc., The. Welding copper-nickel alloys. 3,545,945, 12-8-70, Cl. 29-199.
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Petersen, William H., to Shell Oil Company. Marine riser support system. 3,502,143, 3-24-70, Cl. 166-0.5
Petersen, William H., to Shell Oil Company. Offshore well workover method. 3,513,911, 5-26-70, Cl. 166-0.6
Petersen, William H., to Shell Oil Company. Underwater wellhead connector. 3,516,492, 6-23-70, Cl. 166-0.6
Petersen, William H., to Shell Oil Company. Marine riser pull-down device. 3,517,737, 6-30-70, Cl. 166-0.6
Petersen, William H., to Shell Oil Company. Selective bore wellhead lubricator system. 3,517,738, 6-30-70, Cl. 166-0.6
Petersen, William H.; and Linder, William H., to Shell Oil Company. Tubular connector for lightweight marine conductor pipe. 3,501,173, 3-17-70, Cl. 285-114.
Peterson, Andrew Robert: *See—*
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Peterson, Arnold G., to L. M. & L. Corporation. Endless belt assembly with improved insert coupling. 3,501,971, 3-24-70, Cl. 74-231.
Peterson, Arthur F.; and Walter, Charles R., Jr., to Allied Chemical Corporation. Regulation of urea hydrolysis in soil. 3,547,614, 12-15-70, Cl. 71-28.
Peterson, Axel F. Bag opening machine. 3,501,893, 3-24-70, Cl. 53-190.
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Peterson, Carlton G., to Lockheed Aircraft Corporation. Dual rotor system for helicopters. 3,540,680, 11-17-70, Cl. 244-17.19
Peterson, Clifford D., to Lennox Industries Inc. Flush system arrangement. 3,542,053, 11-24-70, Cl. 137-238.
Peterson, David R., to Motorola, Inc. Method for depositing mixed oxide films containing aluminum oxide. 3,511,703, 5-12-70, Cl. 117-213.
Peterson, Dean M.; and Windle, William C., Jr. Iris type diaphragm. 3,487,762, 1-6-70, Cl. 95-64.
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Peterson, Don G.; and Yariv, Amnon, to Lockheed Aircraft Corporation. Laser having controlled frequency translation. 3,546,622, 12-8-70, Cl. 331-94.5
Peterson, Donald J., to Procter & Gamble Company, The. Alkylthiomethylmetal compounds, preparation thereof. 3,502,731, 3-24-70, Cl. 260-609.
Peterson, Donald J., to Procter & Gamble Company, The. Process for preparing trialkylsilylmethylalkali- metal compounds. 3,511,865, 5-12-70, Cl. 260-448.2
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Peterson, Edwin F. Driving connection. 3,498,651, 3-3-70, Cl. 287-53.
Peterson, Edwin F.; and Matson, Carl G. Seal means for cooperative contacting surfaces in core boxes and the like. 3,491,825, 1-27-70, Cl. 164-228.
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Peterson, George R., to United States of America, Atomic Energy Commission. Process for preparing high-density isotropic graphite structures. 3,517,092, 6-23-70, Cl. 264-29.
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Bickel, Frederic W.; and Peterson, Gerald H.,3,536,653.
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Peterson, Gerald H. Cyclobutylmethyl phosphate and phosphonate esters. 3,514,503, 5-26-70, Cl. 260-958.
Peterson, Gerald H. Cyclopropylmethyl phosphate and phosphonate esters. 3,514,504, 5-26-70, Cl. 260-958.
Peterson, Gerald H. Methylcyclopentyl phosphate and phosphonate esters. 3,514,505, 5-26-70, Cl. 260-958.
Peterson, Gerald R.; and Reinke, John F., to Allen-Bradley Company. Electrical filter body construction having deposited outer surface. 3,541,478, 11-17-70, Cl. 333-79.
Peterson, Gilbert H. Method and structure for securing dental prosthesis. 3,514,859, 6-2-70, Cl. 32-2.
Peterson, Glen R., Jr., to Schmidt, Oscar,-International, Inc. Multi-stringed musical instrument. 3,499,357, 3-10-70, Cl. 84-285.
Peterson, Glen R., Jr., to Oscar Schmidt-International, Inc. Detachable electromagnetic pickup and circuit for stringed musical instrument. 3,548,067, 12-15-70, Cl. 84-1.16
Peterson, Glenn H., 1/2 to Peterson, Ardis. Method and apparatus for cutting multiple threads in large workpieces. 3,545,018, 12-8-70, Cl. 10-101.
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Peterson, Henry J., to Sun Oil Company. Preparation of a synthetic lubricating oil via a disproportionation reaction. 3,518,321; 6-30-70, Cl. 260-672.
Peterson, Henry J., to Sun Oil Company. Preparation of dihydroxynitrophenols. 3,551,503, 12-29-70, Cl. 260-622.
Peterson, Henry W.; and Bucci, Savino A., to Worthington Corporation. Spray valve for water treating and other fluid flow systems. 3,540,473, 11-17-70, Cl. 137-543.15
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Peterson, Herbert L.; and Nacht, George G., to United States of America, Navy. Cumulative phase meter using whole cycle and partial cycle comparison. 3,512,085, 5-12-70, Cl. 324-83.
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Peterson, John B., to Grace, W. R., & Co. Can rack. 3,542,265, 11-24-70, Cl. 224-45.
Peterson, John D.; and Jensen, Gerald A., to Avco Corporation. Method of forming three-dimensional refractory shapes. 3,496,987, 2-24-70, Cl. 164-19.
Peterson, John I.; and Young, Donald S., to United States of America, Health, Education, and Welfare. Urine preservation package. 3,534,851, 10-20-70, Cl. 206-0.5
Peterson, John L., to Atlas Spokane, Inc. Particle handling apparatus. 3,543,950, 12-1-70, Cl. 214-10.
Peterson, John R., to Collins Radio Company. Fluid pressure actuated diaphragm work piece clamping device. 3,499,641, 3-10-70, Cl. 269-22.
Peterson, John W.; and Schick, Henry, to Gilbert Manufacturing Co., Inc. Push-in type of light socket. 3,504,329, 3-31-70, Cl. 339-73.
Peterson, Judith A., to Kellwood Company. Convertible sleeping bag. 3,510,889, 5-12-70, Cl. 5-343.
Peterson, Laurence I., to Dow Chemical Company, The. Method of preparing ynamines. 3,499,904, 3-10-70, Cl. 260-293.
Peterson, Laurence I., to Dow Chemical Company, The. Preparation of ynamines. 3,499,928, 3-10-70, Cl. 260-570.5
Peterson, Le Roy; and Hogan, Lawrence R., to Reynolds Products, Inc. Spray discharge head. 3,490,356, 1-20-70, Cl. 99-300.
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Peterson, Marvin L., to Du Pont de Nemours, E. I., and Company. Gelled aqueous acidic composition containing an in situ cross-linked reaction product. 3,507,720, 4-21-70, Cl. 149-19.
Peterson, Maurice L., 25% to Edwards, Clayton. Opposing piston engine. 3,550,568, 12-29-70, Cl. 123-51.
Peterson, Max E., to Collins Radio Company. Phase locked frequency source with automatic search circuit. 3,535,651, 10-20-70, Cl. 331-4.
Peterson, Neal D., to Foxboro Company, The. Process instrumentation system with dynamic compensator. 3,525,048, 8-18-70, Cl. 330-1.
Peterson, Norman E., to Digitech, Inc. FSK circuit analyzers. 3,509,455, 4-28-70, Cl. 324-79.
Peterson, Norman E.; and Courchene, Ernest E., Jr., to Digitech, Inc. Communication circuit monitoring. 3,500,216, 3-10-70, Cl. 328-163.
Peterson, Norman E.; and Courchene, Ernest E., Jr., to Digitech, Inc. Automatic communication circuit evaluation and sensory system. 3,517,125, 6-23-70, Cl. 178-69.
Peterson, Norman R., to Dow Chemical Company, The. Packaging film. 3,524,795, 8-18-70, Cl. 161-165.
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Peterson, Ralph N.; McCampbell, Donald; and Smith, Thaddeus J., to Powers Regulator Company. Coke oven door. 3,505,174, 4-7-70, Cl. 202-248.
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Peterson, Reuben. Self-watering swine pump. 3,547,083, 12-15-70, Cl. 119-75.
Peterson, Richard E.: *See—*
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Peterson, Richard H. Electronic musical instrument plural tone generator system with chorus effects. 3,538,234, 11-3-70, Cl. 84-1.24
Peterson, Richard L., to Minnesota Mining and Manufacturing Company. Fabric treating composition and treated fabric. 3,503,915, 3-31-70, Cl. 260-29.2
Peterson, Robert A., to Caterpillar Tractor Company. Loader-skidder. 3,508,676, 4-28-70, Cl. 214-767.
Peterson, Robert A.; and Stedman, Robert N., to Caterpillar Tractor Company. Swinging bucket loader. 3,521,782, 7-28-70, Cl. 214-768.
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Peterson, Robert S., to Westinghouse Electric Corporation. Synchronous motor torque compensator control. 3,538,408, 11-3-70, Cl. 318-174.
Peterson, Roger A.; Elson, John P.; Smith, Charles R.; and Slagell, Lloyd D., to Creve Coeur Mfg. Co. Centrifugal cutter with automatic balance. 3,519,047, 7-7-70, Cl. 146-76.

Peterson, Ronald G., to General Motors Corporation. Multispeed transmission. 3,503,282, 3-31-70, Cl. 74-759.
Peterson, Soren E. Conveyer and sorting structure in agricultural machines. 3,519,129, 7-7-70, Cl. 209-83.
Peterson, Soren E. Adjustable valved coupling. 3,532,110, 10-6-70, Cl. 137-322.
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Peterson, Terry Roy, to Hercules Incorporated. Cadmium sulfo-selenide pigments. 3,542,526, 11-24-70, Cl. 23-315.
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Peterson, Victor S.; and Hansen, Irving G., to United States of America, National Aeronautics and Space Administration. Flow angle sensor and read out system. 3,546,471, 12-8-70, Cl. 250-225.
Peterson, Victor W., to General Motors Corporation. Bearing. 3,516,717, 6-23-70, Cl. 308-189.
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Peterson, William H., to Pullman Incorporated Data Resolved Tools Pty. Ltd. Vehicle speed control device. 3,521,052, 7-21-70, Cl.
Peterson, William H., to Pullman Incorporated. Vehicle speed control device. 3,524,982, 8-18-70, Cl. 246-182.
Peterson, William H., to Pullman Incorporated. Vehicle speed control device. 3,527,935, 9-8-70, Cl. 246-182.
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Petio, Franz; Hass, Karl; and Ottersky, Herbert, to Dynamit Nobel Aktiengesellschaft. Process for producing calcium chloride. 3,493,332, 2-3-70, Cl. 23-90.
Petit, George S.; and Wright, Ralph R., to United States of America, Atomic Energy Commission. Preplating treatment for maraging steels. 3,505,095, 4-7-70, Cl. 117-50.
Petit, George S.; and Wright, Ralph R., to United States of America, Atomic Energy Commission. Corrosion-resistant uranium. 3,547,709, 12-15-70, Cl. 148-6.3
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Pfaender, Lawrence V., to Owens-Illinois Inc. Process of making luminescent glass films. 3,492,105, 1-27-70, Cl. 65-60.

Pfaff, Alan R., Jr., to Bernal Incorporated. Method for making cylindrical dies. 3,550,479, 12-29-70, Cl. 76-107.

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Pfaff, Fritz; Staufenbiel, Rolf; and Volker, Heinrich, to Vereinigte Flugtechnische Werke Gesellschaft mit beschrankter Haftung fruher Weser Flugzeugbau/ Focke-Wulf/Heinkel-Flugzeugbau. Flight control for vertically starting and landing multiengine airplanes. 3,525,485, 8-25-70, Cl. 244-12.

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Pfaff, Henry C., Jr., to Pfaff and Kendall. Method of forming a pole structure. 3,529,337, 9-22-70, Cl. 29-155.

Pfaff, Herbert; Lasseur, Walter; and Hillebrand, Friedhelm, to Klockner-Werke AG. Protective arrangement. 3,500,773, 3-17-70, Cl. 109-81.

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Pfaffman, George D.; and Armstrong, Robert G., to Park-Ohio Industries, Inc. Method for hardening gear teeth. 3,527,627, 9-8-70, Cl. 148-147.

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Pfau, Jean; Rhyner, Heinz; and Marendaz, Georges, to Anocut Engineering Company. Protective circuit for electrolytic machining apparatus. 3,520,791, 7-14-70, Cl. 204-224.

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Pfeiffer, Ralph R.; Bottorff, Edmond M.; and Moore, Larry L., to Lilly, Eli, and Company. Cephalosporin antibiotic and process therefor. 3,497,505, 2-24-70, Cl. 260-243.

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Pfister, Franz, to Bolkow Gesellschaft mit beschrankter Haftung, Souriau Electric GmbH, and Bauelemente fur Luftfahrt und Elektronik. Disengageable electric connector. 3,495,206, 2-10-70, Cl. 339-64.

Pfister, Franz, to Bolkow Gesellschaft mit beschrankter Haftung. Launching and loading device for rocket-propelled missiles. 3,526,166, 9-1-70, Cl. 89-1.802

Pfister, Franz; and Legrelle, Alain, to Bolkow Gesellschaft mit beschrankter Haftung, and Souriau Electric GmbH Bauelemente fur Luftfahrt und Elektronik. Disengageable electrical connector with contact protecting means. 3,491,326, 1-20-70, Cl. 339-19.

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Phillips, Carmen S., to International Harvester Company. Forage harvester with variable attitude conveyor and selectively attachable row and non-row harvesters. 3,530,650, 9-29-70, Cl. 56-2.

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Phillips, Claude F.; and Parrent, Russell, to Airtex Products, division of United Industrial Syndicate, Inc. Fuel pump. 3,491,700, 1-27-70, Cl. 103-150.

Phillips, Clayton L. Well tool combination and adapter. 3,499,485, 3-10-70, Cl. 166-67.

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Phillips, Davis M., to McGraw-Edison Company. High voltage connector and entrance bushing assembly. 3,509,516, 4-28-70, Cl. 339-94.

Phillips, Davis M., to McGraw-Edison Company. High voltage cable connectors. 3,509,518, 4-28-70, Cl. 339-103.

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Phillips, Edwin N., to United States of America, Navy. Model positioning and support apparatus. 3,531,876, 10-6-70, Cl. 35-12.

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Picchiottino, John B., to Phonocopy, Inc., mesne. Hum-bucking coupling device. 3,491,216, 1-20-70, Cl. 179-174.
Picciola, Giampaolo, to Italfiarmaco S.p.A. N-(4-Carboxyphenyl)anthranilic acid. 3,511,873, 5-12-70, Cl. 260-471.
Piccirilli, Louis G. No-drip saucer. 3,528,584, 9-15-70, Cl. 220-23.83
Piccoli, Mario, to SOMET S.p.A. Societa Meccanica Tessile. Looms. 3,487,859, 1-6-70, Cl. 139-122.
Piccoli, Mario. Looms. 3,536,105, 10-27-70, Cl. 139-122.
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Pichler, Helmut; and Obenaus, Fritz. Process for the manufacture of citraconic acid anhydride. 3,503,999, 3-31-70, Cl. 260-346.8
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Pichot, Michel Georges Andre; and Roquet, Raymond Jacques Charles, to Lignes Telegraphiques & Telephoniques. Devices for distant supervision of the working condition of telephone line repeaters by means of local generators associated therewith. 3,551,610, 12-29-70, Cl. 179-175.31
Pick, Robert M. Washing machine. 3,494,152, 2-10-70, Cl. 68-13.
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Pickard, John E., to Ball Corporation. Bimetal planographic plate and method of preparation. 3,508,923, 4-28-70, Cl. 96-86.
Pickard, John E., to Ball Corporation. Lithographic plate and method of making same. 3,508,924, 4-28-70, Cl. 96-86.
Pickard, John E., to Ball Corporation. Printing plate processing apparatus. 3,528,358, 9-15-70, Cl. 95-89.
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Pickard, Stanley James. Bore pump assemblies. 3,502,037, 3-24-70, Cl. 103-219.
Pickell, Phillip R., to Agricultural Aviation Engineering Company. Aircraft mounted spreader apparatus. 3,525,473, 8-25-70, Cl. 239-171.
Pickelman, Dale M.: *See—*
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Pickens, Gerald F.; Hopf, Henry C.; and Kirn, Thomas G., to Eastman Kodak Company. Motion picture projector gate system for accommodating multiple film formats. 3,536,388, 10-27-70, Cl. 352-79.
Pickens, Gerald F.; and Kirn, Thomas G., to Eastman Kodak Company. Interchangeable spindle assembly. 3,547,366, 12-15-70, Cl. 242-68.3
Pickens, Gerald F.; Kirn, Thomas G.; and Crawford, Philip N., to Eastman Kodak Company. Motion picture projector gate system for accommodating multiple film formats. 3,537,106, 10-27-70, Cl. 352-79.
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Buffington, Marvin A., 3,517,661.
Hansen, Carl W., 3,543,384.
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Naylor, Arthur F., 3,514,596.
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Pickering, Samuel William, to Electric & Musical Industries Limited. Aerial systems having plural lenses, selectable for delay correction. 3,528,072, 9-8-70, Cl. 343-754.
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Pickett, John E.P. Process of mounting precoated cover glass for microscope slides. 3,498,860, 3-3-70, Cl. 156-57.
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Pickles, Joseph, to Ferro Manufacturing Corporation. Power recliner assembly. 3,499,344, 3-10-70, Cl. 74-424.8
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Pickles, Joseph; and Littmann, Joseph C., to Ferro Manufacturing Corporation. Fluid supply device. 3,491,793, 1-27-70, Cl. 137-563.
Pickles, Kathleen M.; Hirst, Harry; and French, William G., to Linton and Hirst Limited. Method of producing cores. 3,550,266, 12-29-70, Cl. 29-609.
Pickles, Kenneth, to Tweedy of Burnley Limited. Dough manipulation machines. 3,507,227, 4-21-70, Cl. 107-9.
Pickles, Norman, to Blackburn Electronic Production Controls Limited. Relay stop circuit for a pattern controlled tufting machine. 3,488,755, 1-6-70, Cl. 317-157.
Pickles, Norman. Pattern devices for textile machines. 3,496,893, 2-24-70, Cl. 112-79.
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Picou, Claude H.; and Angelle, Philippe A., to Compagnie Generale de Geophysique, and L'Institut Francais du Petrole, mesne. Method and means for numerical coding. 3,550,115, 12-22-70, Cl. 340-347.
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Pierce, Wayne M., Jr., to Hunt-Pierce Corporation. Extensible boom structure. 3,498,474, 3-3-70, Cl. 212-59.

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Pietrusza, Edward W.; and Pedersen, Jack R., to Allied Chemical Corporation. Novel promoters for the anionic polymerization of lactams. 3,499,875, 3-10-70, Cl. 260-78.

Pietrusza, Edward W.; and Pedersen, Jack R., to Allied Chemical Corporation. Polyamide blends containing dicarboxy dipheny sulfone groups and pipenidyl groups. 3,519,699, 7-7-70, Cl. 260-857.

Pietrusza, Edward W.; and Pedersen, Jack R., to Allied Chemical Corporation. Linear polyesters of 4,4'dichlorocarbonyldiphenylsulfone and aromatic dihydroxy compounds and their method of preparation. 3,536,665, 10-27-70, Cl. 260-49.

Pietrusza, Edward W.; and Pedersen, Jack R., to Allied Chemical Corporation. Novel moisture resistant polyamides from a diamine having at least one piperidyl group. 3,544,527, 12-1-70, Cl. 260-78.

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Piffath, Rodney S.; and Cole, John J., to Butane Match Corporation of America. Gas lighter construction. 3,523,005, 8-4-70, Cl. 431-344.

Piffath, Rodney S.; and Cole, John J., to Butane Match Corporation of America. Gas flow regulator for lighter. 3,523,006, 8-4-70, Cl. 431-344.

Pigeon, Dale W., to General Motors Corporation. Latching switch with double solenoid. 3,488,612, 1-6-70, Cl. 335-187.

Pigford, Robert L.; Baker, Burke, III; and Blum, Dwain E., to United States of America, Atomic Energy Commission. Cycling zone adsorption process. 3,542,525, 11-24-70, Cl. 23-311.

Piggott, Richard G., to Spraying Systems Co. Indexable sprayer with plural nozzle orifices. 3,516,611, 6-23-70, Cl. 239-391.

Piggott, Richard G., to Spraying Systems Co. Flow diverter ball valve. 3,516,638, 6-23-70, Cl. 251-175.

Piguet, Pierre, to Ateliers des Charmilles S.A. Hydraulic machine. 3,545,879, 12-8-70, Cl. 415-160.

Pigulevsky, Evgeny Dmitrievich: *See—*
Bogdanov, Vladimir Vladimirovich; Glagovsky, Boris Aronovich; Moskovenko, Igor Borisovich; Nesmashny, Evgeny Vasilievich; Pigulevsky, Evgeny Dmitrievich; and Rybakov, Vladimir Alexeevich,3,499,318.

Pihr, Wilhelm J. Apparatus for cutting and coiling webs. 3,506,211, 4-14-70, Cl. 242-55.

Pikal, Harry. Wrapping machine using limp film for irregular articles. 3,501,892, 3-24-70, Cl. 53-180.

Pike, Clyde. Side window arm shade. 3,489,457, 1-13-70, Cl. 296-152.

Pike Corporation of America: *See—*
Lee, Fred Curtis, 3,487,857.
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Pike, Daniel E., to American Air Filter Company, Inc. Method of treating hot waste gases from a metallurgical furnace. 3,541,761, 11-24-70, Cl. 55-89.

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Pike, John W., to Struthers Scientific and International Corporation. Method of autoclaving building blocks. 3,535,407, 10-20-70, Cl. 264-37.

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Pikel, John H., to Chemetron Corporation. Liquid expressing press. 3,548,743, 12-22-70, Cl. 100-145.

Pikhtovnikov, Rostislav Vyacheslavovich; Gubsky, Alexei Alexeevich; Borisevich, Vladimir Karpovich; Kirichenko, Lidia Rostislavovna; Barsukov, Albert Petrovich; Plisko-Vinogradsky, Arkady Fedorovich; Shalygin, Vladimir Ivanovich; Repin, Georgy Arkadievich; Buzukov, Anatoly Anatolievich; Litovsky, Leonid Vsevolodovich; and Eliseev, Valery Ivanovich. Set-up for explosive forming. 3,518,860, 7-7-70, Cl. 72-56.

Pikl, Josef, to Du Pont de Nemours, E. I., and Company. Process for preparing benzamide polymers. 3,541,056, 11-17-70, Cl. 260-78.

Pikl, Josef, to Du Pont de Nemours, E. I., and Company. Process for preparing 2-(2'-aminophenyl)-2,1,3- benzotriazoles. 3,547,941, 12-15-70, Cl. 260-308.

Pilat, Izrail Moiseevich: *See—*
Samoilovich, Anatoly Grigorievich; Pilat, Izrail Moiseevich; and Anatychuk, Lukyan Ivanovich,3,530,008.

Pilato, Jack, to Du Pont de Nemours, E. I., and Company. Silver halide emulsion comprising a gelatin-polyvinyl compound dispersion. 3,547,650, 12-15-70, Cl. 96-114.

Pilato, Joseph M.; and Hettinger, William P., Jr., to Grace, W. R., & Co. Glassy alkalized alumina. 3,501,264, 3-17-70, Cl. 23-52.

Pilato, Louis A.; and Wagner, Eric R., to Union Carbide Corporation. Polyvinyl esters and derivatives therefrom. 3,519,701, 7-7-70, Cl. 260-874.

Pilato, Maurice: *See—*
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Pilch, John S., to Ware Machine Works, Inc. Control mechanism for automatically restricting the flow of fluid in a conduit leading to hydraulically actuated means. 3,530,766, 9-29-70, Cl. 91-411.

Pilch, John S., to Ware Machine Works, Inc. Telescopic dipperstick. 3,536,217, 10-27-70, Cl. 214-138.

Pilch, Kurt; and Sperber, Heinrich, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Binary support system for fluidized catalysts. 3,538,018, 11-3-70, Cl. 252-435.

Pilcher, Harold. Automatic container storage level container. 3,500,546, 3-17-70, Cl. 33-126.6

Pile, Delbert W., to Bendix Corporation, The. Radar system incorporating calibration means. 3,544,996, 12-1-70, Cl. 343-17.7

Pilgrim, Kurt H. G.: *See—*
Haynes, George R.; McBeth, Clyde W.; Pilgrim, Kurt H. G.; and White, Lyle V.,3,538,220.

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Pilipovich, Donald: *See—*
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Boylett, William F.; Hill, Joseph William; Leamon, Tom B.; and Shaw, George, 3,526,102.

Dickinson, George Alfred; Oxley, Brian W.; and Thomas, James E. C., 3,531,274.

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Hynd, William Christie, 3,498,778.

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Pillard, Henry P. Football reactor training sled. 3,514,105, 5-26-70, Cl. 273-55.

Piller, Herbert; and White, David J., to United States of America, Navy. Large band-width laser modulator. 3,526,854, 9-1-70, Cl. 332-7.51

Piller, Kenneth R. Friction type foot exercising device. 3,525,522, 8-25-70, Cl. 272-79.

Pilley Brush Company: *See—*
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Pilliner, Bernard Joseph. Means for withdrawing cups from a nested stack. 3,540,621, 11-17-70, Cl. 221-211.

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Pillons, Georges; and Aspa, Denise. Vehicle seat suspension systems. 3,504,881, 4-7-70, Cl. 248-399.

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Christensen, Kenneth M., 3,495,458.
Culley, Jack R.; and Dienst, Carl S., 3,510,050.
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Fritzberg, Edward L.; and Jones, Selwyn, 3,511,169.
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Katz, Morris H.; and Szafranski, John G., 3,520,698.
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Pillsbury, Donald M., Jr.; and Hadley, Russell E., to U.S. Philips Corporation, mesne. Liquid nitrogen transfer system using the Leidenfrost principle. 3,548,607, 12-22-70, Cl. 62-52.

Pillsbury, Paul W.; and Suter, Jeffrey K., to United States of America, Navy. Combustion air control shutter. 3,490,230, 1-20-70, Cl. 60-39.65

Pilot Chemical Company: *See—*
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Pilot Man-Nen-Nen-Hitsu Kabushiki Kaisha: *See—*
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Pilot Research Corporation: *See—*
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Pilz, Erwin, to Stierlen-Werke Aktiengesellschaft. Apparatus for the treatment of bone fractures. 3,509,876, 5-5-70, Cl. 128-84.

Pilz, Gertrud: *See—*
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Pilz, Herbert, deceased (by Pilz, Gertrud; heir). Apparatus for treating a chocolate mass. 3,508,932, 4-28-70, Cl. 99-236.

Pincemin, Jean. Tile mounting structures. 3,504,470, 4-7-70, Cl. 52-385.

Pinchbeck, Peter H., to United Coke & Chemicals Company Limited. Process for the production of carbon articles. 3,505,090, 4-7-70, Cl. 106-284.

Pinchemel, Marius: *See—*
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Pinchuk, George: *See—*
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Pinckaers, Balthasar H., to Honeywell Inc. Temperature control system. 3,499,482, 3-10-70, Cl. 165-24.

Pinckaers, Balthasar H., to Honeywell Inc. Condition responsive control apparatus. 3,514,628, 5-26-70, Cl. 307-117.

Pinckaers, Balthasar H., to Honeywell Inc. Adjustable differential amplifier system including feedback amplifier means. 3,535,561, 10-20-70, Cl. 307-310.

Pinckaers, Balthasar H., to Honeywell Inc. Pulse operated condition control device. 3,543,103, 11-24-70, Cl. 317-148.5

Pinckaers, Balthasar Hubert, to Honeywell Inc. Semiconductor differential amplifier. 3,543,176, 11-24-70, Cl. 330-30.

Pinckard, Charles P. Magnetically responsive silverware and chinaware. 3,508,183, 4-21-70, Cl. 335-303.

Pinckernelle, Werner; and Gentsch, Leonore, to Salzdetfurth Aktiengesellschaft. Sodium chloride de-icing composition with alkali metal iron cyanide and calcium or magnesium chloride. 3,505,234, 4-7-70, Cl. 252-70.

Pincus, Abraham, to Core Properties Development Corporation. Prefabricated building construction. 3,492,767, 2-3-70, Cl. 52-79.

Pincus, Meyer, to Combustion Engineering, Inc. Optical observation port. 3,490,421, 1-20-70, Cl. 122-235.

Pincus, Ralph M., to Bendix Corporation, The. Automatic limit colorimeter. 3,529,895, 9-22-70, Cl. 356-179.

Pinczower, Henry J.: *See—*
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Pinder, James M.; and Humphrey, Warren A., to Hoover Company, The. Positive position pinch valve. 3,498,316, 3-3-70, Cl. 137-595.

Pinder, Michael A., to Esso Research and Engineering Company. Method and apparatus for moving storage tanks. 3,520,381, 7-14-70, Cl. 180-127.

Pine, Lloyd A.; Roberts, Durward T., Jr.; and Jolley, Gordon B., to Esso Research and Engineering Company. Purification of butylenes. 3,518,323, 6-30-70, Cl. 260-683.15

Pine, Robert M. Method and apparatus for indicating a change within a grouping. 3,520,404, 7-14-70, Cl. 209-72.

Pine, Wilson C.; Westeren, Herbert W.; and Kimball, William H., to Hayes, C. I., Inc. Vacuum furnace having a liquid quench and a vertically movable work holder. 3,522,357, 7-28-70, Cl. 13-31.

Pineau, Germaine: *See—*
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Pineau, Jean; and Peroy, Francois, to Regie Nationale des Usines Renault. Vehicle signal control circuitry. 3,500,314, 3-10-70, Cl. 340-74.

Pineda, Urbano A., to General Electric Company. Stator adjusting mechanism for axial flow compressors. 3,487,992, 1-6-70, Cl. 230-114.

Pinede, Edouard: *See—*
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Pinel, Francois, to Boussois-Souchon-Neuvesel. Glass-cutting machine. 3,518,907, 7-7-70, Cl. 83-12.

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Pines, Seemon H., to Merck & Co., Inc. Water-soluble 2-substituted benzimidazole methanesulfonic acid salts. 3,538,108, 11-3-70, Cl. 260-302.

Pines, Seemon H.; Karady, Sandor; and Sletzinger, Meyer, to Merck & Co., Inc. Preparation of optically active amino acids. 3,517,057, 6-23-70, Cl. 260-519.

Pinet, Andre E.; Jacob, Jean-Baptiste; and Esclangon, Ernest P. Multiregister for time division telephone switching systems. 3,524,946, 8-18-70, Cl. 179-18.

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Pinkert, Michael S. Random time interval generator. 3,521,171, 7-21-70, Cl. 328-129.

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Pinkerton, Robert Bruce, to Du Pont de Nemours, E. I., and Company. Process for imparting oil and water repellency to leathers. 3,524,760, 8-18-70, Cl. 117-63.

Pinkham, Jesse Randolph; Payne, Leslie Elmer; Michal, David Hill; and McArthur, Colin Shaw, to Reynolds, R. J., Tobacco Company. Apparatus for testing cigarettes. 3,543,927, 12-1-70, Cl. 209-75.

Pinkham, Jesse R., to Reynolds, R. J., Tobacco Company. Wrapping machine. 3,517,479, 6-30-70, Cl. 53-182.

Pinkham, Jesse R., to Reynolds, R. J., Tobacco Company. Apparatus for making loose granular filters. 3,517,480, 6-30-70, Cl. 53-183.

Pinkham, Jesse R.: *See—*
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Pinkney, Paul S., to Du Pont de Nemours, E. I., and Company. Vinyl ester/ethylene copolymer aqueous dispersions. 3,547,845, 12-15-70, Cl. 260-17.

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Pinnhammer, Friedrich Wilhelm, to Girling Limited. Disc brakes and shoe retaining means. 3,545,575, 12-8-70, Cl. 188-73.6

Pinnolis, Samuel; and Schmidt, Wilhelm E.A., to Western Electric Company, Incorporated. Apparatus for removing an article clamped in a workholder. 3,491,900, 1-27-70, Cl. 214-1.

Pinnolis, Samuel: *See—*
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Pino, Manuel A., to Chevron Research Company. Halogenated phenylalkoxysilanes as high temperature fire resistant fluids. 3,507,898, 4-21-70, Cl. 260-448.8

Pino, Piero; Piacenti, Franco; and Bianchi, Mario, to Lonza Ltd. Hexaruthenium octadecacarbonyl and its method of preparation. 3,542,513, 11-24-70, Cl. 23-203.

Pino, Piero; Sbrana, Glauco; and Braca, Giuseppe, to Lonza Ltd. Process for production of allyl ruthenium tricarbonyl halides. 3,546,264, 12-8-70, Cl. 260-429.

Pino, Wilton J., Jr., 1/10 to Spedale, A. J. Pipe Y locator. 3,533,166, 10-13-70, Cl. 33-174.

Pinsky, Joseph: *See—*
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Pinsley, Edward A., to United Aircraft Corporation. Appparatus for traversing a cold cathode discharge. 3,518,479, 6-30-70, Cl. 313-161.

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Pintell, Robert H., to Intron International, Inc. Transducer diaphragm imbedded with conductively- coated ferromagnetic particles. 3,497,642, 2-24-70, Cl. 179-181.

Pintell, Robert H., to Intron International Inc. Oscillator with push-pull-connected semiconductor elements. 3,550,036, 12-22-70, Cl. 331-113.

Pinter, Imre James L.: *See—*
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Pinto, Olympio F. Controllable ballast for underwater diving equipment. 3,495,413, 2-17-70, Cl. 61-69.

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Pinto, Ross E., to McDonald-Starlite, Inc., mesne. Lawn edger and trimmer adjustment apparatus. 3,490,213, 1-20-70, Cl. 56-25.4

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Piot, Rene R. P., to Societe anonyme dite: Derruppe S.A. Epicyclic gear boxes. 3,487,723, 1-6-70, Cl. 74-682.

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Piotrowski, Marian: *See—*
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Piotrowski, Stephen M., to Burger King Corporation. Apparatus for cooking comestibles immersed in heated cooking oil. 3,495,525, 2-17-70, Cl. 99-408.

Pipa, William J. Self-winding doll and mechanism. 3,496,672, 2-24-70, Cl. 46-118.

Piper Aircraft Corporation: *See—*
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Piper, Glenn T., to Hoover Company, The. Coating for steam iron flash boiler. 3,499,237, 3-10-70, Cl. 38-77.83

Piper, James R., to Balance-Flo, Inc. Heating system. 3,526,361, 9-1-70, Cl. 237-8.

Piper, John William; and Styles, Peter Robert Dennis, to Vickers Limited. Labeled container and method of recording data thereon. 3,490,163, 1-20-70, Cl. 40-310.

Piper, Robert J., to Stearns Manufacturing Co. Conveyor drive means. 3,498,445, 3-3-70, Cl. 198-181.

Piper, Robert J.; and Locke, Frank K., to Stearns Manufacturing Co. Method and apparatus for molding a block. 3,522,336, 7-28-70, Cl. 264-71.

Pipes, Dennis A., to Essex International, Inc., mesne. Burner and control assembly. 3,490,854, 1-20-70, Cl. 431-82.

Pipher, Fred C., to Lockheed Aircraft Corporation. Riveting method employing metal flow in both the manufactured head and the upsethead. 3,526,032, 9-1-70, Cl. 29-509.

Pipher, Robert E.: *See—*
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Pipkin, Edward L.; Wicke, Julius C., Jr.; and Salsman, Garrett G., to United States of America, Navy. Sonar system. 3,538,493, 11-3-70, Cl. 340-3.

Pipon, Robert: *See—*
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Pippen, David L., to United States of America, National Aeronautics and Space Administration. High voltage pulse generator. 3,530,336, 9-22-70, Cl. 315-241.

Pippert, Aaron J., to Universal Packing & Gasket Company. Packing ring and seal assembly employing same. 3,497,224, 2-24-70, Cl. 277-124.

Pippin, Reginald F., Jr. Propelled toy arrangement and method. 3,510,980, 5-12-70, Cl. 46-74.

Pippin, Reginald F., Jr. Multi-stage reaction toy. 3,550,313, 12-29-70, Cl. 46-74.

Piquerez, Ervin. Watertight timepiece case. 3,505,807, 4-14-70, Cl. 58-90.

Piquerez, Ervin. Timepiece with turning bezels. 3,548,588, 12-22-70, Cl. 58-91.

Pirat, Claude Paul Aime; and Verscheure, Daniel Jean Pierre Cornil, to Service d'Exploitation Industrielle des Tabacs et des Allumettes. Devices for fitting tips to rod-shaped objects such as cigars. 3,534,744, 10-20-70, Cl. 131-88.

Piree, Pierre Theodoor Johan, to U.S. Philips Corporation. Radio-interference-free low-pressure mercury-vapor lamp. 3,505,553, 4-7-70, Cl. 313-107.

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Pittman, Allen G.; and Wasley, William L., to United States of America, Agriculture. Process for treating fibrous materials with a fluorinated allyl ether. 3,522,084, 7-28-70, Cl. 117-161.

Pittman, Allen G.; and Wasley, William L., to United States of America, Agriculture. Fluorinated alcohols, their esters, and use thereof. 3,527,742, 9-8-70, Cl. 260-89.5

Pittman, Allen G.; and Wasley, William L., to United States of America, Agriculture. Enhancing the repellency of fibrous materials with bis-(fluoroalkoxy) alkyl silanes. 3,528,850, 9-15-70, Cl. 117-161.

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Pittman, Barry A. C.; and Cage, Kenneth M., to Black Clawson Company, The. Apparatus for cutting a continuously moving strip of material. 3,504,718, 4-7-70, Cl. 143-46.

Pittman, Barry A. C.; and Maxey, Carl W., to Black Clawson Company, The. Apparatus for cutting a continuously moving strip of material. 3,504,717, 4-7-70, Cl. 143-46.

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Plaessman, Frederick A.; and Faber, George N., to Seal-Spout Corporation. Machine for inserting pouring spouts and sifters on cartons. 3,523,512, 8-11-70, Cl. 113-1.

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Plasser, Franz; and Theurer, Josef. Method and apparatus for correcting the position of a track. 3,545,384, 12-8-70, Cl. 104-7.

Plasser, Franz; and Theurer, Josef. Track lining. 3,547,037, 12-15-70, Cl. 104-8.

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Plumat, Emile, to Glaverbel S.A. Process and apparatus for electrochemical modification of glass. 3,505,048, 4-7-70, Cl. 65-30.
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Podell, Allen F., to Adams-Russell Co., Inc. Transmission line hybrids having not more than four and not less than two ferrite elements. 3,508,171, 4-21-70, Cl. 333-11.
Podell, Allen F., to Adams-Russell Co., Inc. Wide band hybrid coupler having an open end transmission line section coupled to each part. 3,516,025, 6-2-70, Cl. 333-11.
Podell, Allen F., to Adams-Russell Co., Inc. Lattice type phase shifting network. 3,529,233, 9-15-70, Cl. 323-124.
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Podschadly, Gerhard; Siemon, Detlev; and Tamm, Rolf, to Bodenseewerk Perkin-Elmer & Co., G.m.b.H. Sample conveying arrangement for chemical analysis apparatus. 3,545,933, 12-8-70, Cl. 23-253.
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Poe, Lloyd Richard, to Hartwell Corporation. Limited load latch. 3,531,174, 9-29-70, Cl. 312-333.
Poe, Lloyd Richard, to Hartwell Corporation. Link operated opposed jaw latch. 3,532,373, 10-6-70, Cl. 292-47.
Poe, Lloyd Richard. Easily cleaned hair comb. 3,542,040, 11-24-70, Cl. 132-11.
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Poe, Lloyd Richard; and Brockway, James E., to Hartwell Corporation. Opposed jaw latch. 3,515,421, 6-2-70, Cl. 292-49.
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Polizzotto, Joseph F., to OPTOmechanisms, Inc. Telescoping drive shaft. 3,492,835, 2-3-70, Cl. 64-23.
Polk, Andrew Wood, Jr., to Wonder Products Company. Adjustable stand for a riding toy. 3,495,794, 2-17-70, Cl. 248-157.
Polk, Donald H.; and Haught, Alan F., to United Aircraft Corporation. Q-spoiling of lasers using two dye cells. 3,513,409, 5-19-70, Cl. 331-94.5
Polk, Edwin Rico, to Bard, C. R., Inc. Flutter valve and method of making same. 3,491,791, 1-27-70, Cl. 137-525.1
Polkinghorn, Robert W.; Pfeifer, Arthur F.; and Dierking, William H., to North American Rockwell Corporation. MOS transistor driver using capacitive feedback. 3,506,851, 4-14-70, Cl. 307-251.
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Pollack, Howard M., to Bendix Corporation, The. Gain adjustment means for bean couplers. 3,550,128, 12-22-70, Cl. 343-107.
Pollack, Roy L.; and Rowley, David G., to Schlage Lock Company. Adjustable backcheck mechanism for door closers. 3,546,734, 12-15-70, Cl. 16-52.
Pollack, Solomon R., to Sperry Rand Corporation. Multilayer thin film magnetic memory element. 3,525,023, 8-18-70, Cl. 317-234.
Pollak, Abraham. Belt sanders. 3,538,650, 11-10-70, Cl. 51-148.
Pollak, John M., to Leviton Manufacturing Co., Inc. Tamper-proof key-operated electric switch. 3,497,646, 2-24-70, Cl. 200-42.
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Pollak, Manfred J. In-the-ear hearing aid unit. 3,496,306, 2-17-70, Cl. 179-107.
Pollak, Peter I.; and Tull, Roger J., to Merck & Co., Inc. Alkyl N-amidino (or guanidino) pyrazinimidates. 3,503,972, 3-31-70, Cl. 260-250.
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Pollaschek, Viktor, to U.S. Philips Corporation. Tape-guide arrangement on a drum for a video-recorder. 3,495,753, 2-17-70, Cl. 226-198.
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Polli, Gerald P.; Shoop, Clyde E.; and Grim, Wayne M., to Merck & Co., Inc. Controlled release medicinal tablets. 3,538,214, 11-3-70, Cl. 424-19.
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Pollitzer, Ernest L., to Universal Oil Products Company. Hydrogenation of aromatic hydrocarbons. 3,529,029, 9-15-70, Cl. 260-667.
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Pollock, Mark W., to Argus Chemical Corporation. Stabilizer composition for lessening early discoloration of polyvinyl chloride resins when heated. 3,507,827, 4-21-70, Cl. 260-45.75

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Poole, Leslie John; and Cottrill, John Bernard, to International Standard Electric Corporation. High density multihead recording device. 3,521,295, 7-21-70, Cl. 346-74.
Poole, Norman M. Pipe laying sleds. 3,490,609, 1-20-70, Cl. 214-1.
Poole, Norman M. Submersible pipe laying barges. 3,514,962, 6-2-70, Cl. 61-72.3
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Popat, Pranjivan V.; and Rubin, Edward J., to Texas Instruments, Incorporated. Low temperature rechargeable battery. 3,489,609, 1-13-70, Cl. 136-6.

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Pope, Joseph Albert, to Mirrlees National Limited. Temperature responsive devices for moving parts of mechanism. 3,526,891, 9-1-70, Cl. 340-227.1

Pope, Joseph Albert; and Appleby, John Edwin Herbert, to Mirrlees National Limited. Impulse pump. 3,495,686, 2-17-70, Cl. 184-18.

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Popeil, Samuel J., to Popeil Brothers, Inc. Hair curler steamer and facial sauna device. 3,493,722, 2-3-70, Cl. 219-222.

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Porter, Ralph F., to Eastman Kodak Company. Sulfonate ester-containing two-equivalent yellow- forming couplers. 3,542,840, 11-24-70, Cl. 260-456.

Porter, Raymond J., to Gulf & Western Industrial Products Company, mesne. Micrometer adjustment for cutting tools. 3,518,738, 7-7-70, Cl. 29-96.

Porter, Robert E. Work feeder for sewing machine. 3,530,809, 9-29-70, Cl. 112-207.

Porter, Stuart M.: *See—*
Weimer, Ervin C.; Shideler, Harold W.; and Porter, Stuart M.,3,538,614.

Porter, Thomas M. File attachment for sanders. 3,518,735, 7-7-70, Cl. 29-78.

Porter, Virgle E.: *See—*
Billingsley, Robert L.; and Porter, Virgle E.,3,492,439.

Porter, Virgle E., to Amtron, Inc. Control circuit for stopping a motor in response to a torque overload. 3,536,977, 10-27-70, Cl. 318-461.

Porter, Walter G.; and Stroh, Werner H., to Porter Precision Products, Inc. Guide bushing for die sets. 3,496,818, 2-24-70, Cl. 83-140.

Porter, Warren K., Jr.: *See—*
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Porter, Wellington W. Deleafer. 3,513,650, 5-26-70, Cl. 56-234.

Porter, Wellington W. Pickling cucumber harvester. 3,518,818, 7-7-70, Cl. 56-327.

Porter-Leavitt Company: *See—*
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Porterfield, Cecil P.; and Adams, Graham R., to Park-Ohio Industries, Inc. Gating control of a resonant bridge inverter for induction heating use. 3,506,907, 4-14-70, Cl. 321-45.

Portes, Pierre J.; Mas, Robert Jean; and Richerd, Jacques Hugues, to Fabriques de Produits Chimiques de Thann et de Mulhouse. Process for producing titanium dioxide by the vapor phase oxidation of titanium tetrachloride. 3,499,730, 3-10-70, Cl. 23-202.

Portescap, Le Porte-Echappement Universel S.A.: *See—*
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Porth, Erwin, to Mathias Bauerle Gesellschaft mit beschrankter Haftung. Folding machines with folding pockets. 3,510,121, 5-5-70, Cl. 270-68.

Porth, Erwin, to Mathias Bauerle Gesellschaft mit beschrankter Haftung. Collator with sheet feeders assisted by vibration. 3,545,741, 12-8-70, Cl. 270-58.

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Portis, Ralph G., to Midland Manufacturing Corporation. Gaging apparatus for a tank. 3,513,702, 5-26-70, Cl. 73-321.

Portman, Warren C.; Olsen, Norman R.; and Weinstein, Alex J., to Ednalite Corporation, The. Control for microfilm viewer drive. 3,535,029, 10-20-70, Cl. 353-26.

Portman, Warren C.: *See—*
Goldmark, Peter C.; Kaiser, Arthur; Bauer, Benjamin B.; and Portman, Warren C.,3,504,445.

Portno, Antony David, to Brewing Patents Limited. Continuous fermentation apparatus. 3,528,889, 9-15-70, Cl. 195-135.

Portnoff, Lawrence A. Hybrid kneader-feeder-cutter. 3,496,894, 2-24-70, Cl. 112-252.

Portnov, Baruch. Material heat-treating apparatus with conveyor. 3,529,813, 9-22-70, Cl. 263-31.

Portolani, Augusto; Panciroli, Gino; and Giovanardi, Sandro, to Montecatini Edison S.p.A. Bonding olefin copolymers to polyolefin fibers. 3,551,284, 12-29-70, Cl. 161-252.

Portolani, Augusto: *See—*
Peri, Cesare Augusto; Sugni, Giorgio; Portolani, Augusto; Ballini, Giuliano; Hugel, Robert; and Fontani, Spartaco,3,522,225.

Portyrata, Raymond E., to LaBranche Industries, Inc. Dispenser assembly and method of dispensing. 3,490,647, 1-20-70, Cl. 222-1.

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Wyness, Keith Gordon, 3,496,042.

Porwancher, Samuel R., to Michigan Oven Company. Smoke generator. 3,502,846, 3-24-70, Cl. 219-388.

Porwancher, Samuel R., to Michigan Oven Company. Smokehouse exhaust incinerator. 3,511,224, 5-12-70, Cl. 126-59.5

Posavec, Zvonimir. Floating fishhook holder. 3,490,168, 1-20-70, Cl. 43-57.5

Posavec, Zvonimir. Zipper locking bar. 3,522,964, 8-4-70, Cl. 294-1.

Poschel, Alfred B. Photocomposing machine for cylinders. 3,515,479, 6-2-70, Cl. 355-86.

Poschel, Alfred B. Apparatus for applying a coating on printing cylinder. 3,518,965, 7-7-70, Cl. 118-106.

Poschenrieder, Walter P.: *See—*
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Poschenrieder, Werner, to Siemens Aktiengesellschaft. Pulse controlled frequency filter. 3,514,726, 5-26-70, Cl. 333-70.

Poschenrieder, Werner, to Siemens Aktiengesellschaft. Time division multiplex system provided with bandwidth multiplication feature. 3,535,457, 10-20-70, Cl. 179-15.

Poschl, Klaus; and Veith, Werner, to Siemens Aktiengesellschaft. Hollow electron beam generator having cathode of rotational generation whose surface coincides with magnetic flux. 3,506,866, 4-14-70, Cl. 313-84.

Poschman, William M., II. Control apparatus for electrical circuit breaker. 3,525,956, 8-25-70, Cl. 335-74.

Posdal, James R., to Kraftco Corporation. Method of making fudge, caramel, fandant and hard candy type confections. 3,543,696, 12-1-70, Cl. 107-54.

Pose-Marre Edelstahlwerk G.m.b.H.: *See—*
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Posegate, Russell W.: *See—*
Rogers, Alan B.; Schwall, Donald V.; and Posegate, Russell W.,3,507,207.

Posegate, Russell W., to Armour and Company. Apparatus for preparing poultry loaf product. 3,530,531, 9-29-70, Cl. 17-32.

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Posgate, Edward Salmon. Turbidimeters. 3,522,436, 8-4-70, Cl. 250-218.

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Posner, Abraham I., to Diamond Shamrock Corporation. Use of nonwoven linings for luggage, musical cases and the like. 3,534,852, 10-20-70, Cl. 206-13.

Posner, Adolph; and Inglima, Richard, to I.G.R. Corporation. Disposable tip applanation tonometer. 3,511,085, 5-12-70, Cl. 73-80.

Posner, Howard G.: *See—*
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Posner, Samuel. Portable cleaner for trailer interiors. 3,534,746, 10-20-70, Cl. 134-46.

Posner, Samuel, to Power-Wash, Inc. Portable self-propelled trailer washing device. 3,543,319, 12-1-70, Cl. 15-21.

Pospischil, Heinz, to Spitzner, W., Arzneimittelfabrik GmbH. Bubble bath composition. 3,489,688, 1-13-70, Cl. 252-152.

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Poss, Richard F.: *See—*
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Posselt, Klaus; and Thiele, Kurt, to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler. Certain thiazolyl-and pyridinyl-aminoketones. 3,514,465, 5-26-70, Cl. 260-296.

Post, A. J., Company: *See—*
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Post, Daniel. Method and means for producing and utilizing arrays of diffraction type lenses for micro- electronics mask making. 3,536,371, 10-27-70, Cl. 350-3.5

Post, Donald P., to Structomatic, Inc. Roof truss forming machine. 3,530,790, 9-29-70, Cl. 100-100.

Post, Frank E., to Weston Instruments, Inc. Frequency response analyzer having a function generator for providing stimulating signals to a system under test. 3,526,832, 9-1-70, Cl. 324-57.

Post, Gerald: *See—*
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Post, Richard F., to United States of America, Atomic Energy Commission. Method and apparatus for accelerating ions out of a hot plasma region. 3,500,077, 3-10-70, Cl. 310-11.

Post, Robert E.; and Brown, Robert G., to Bendix Corporation, The. Method and apparatus for measuring liquid volume in a tank. 3,540,275, 11-17-70, Cl. 73-290.

Post, Udo: *See—*
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Post, William Clinton: *See—*
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Posting Equipment Corporation: *See—*
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Postma, Willem Johannes, to U.S. Philips Corporation. Quaternary soldering alloy. 3,549,355, 12-22-70, Cl. 75-134.

Postmaster General, Her Majesty's: *See—*
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Ash, Bernard; and Green, Geoffrey Hugh Crofton, 3,495,302.
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Postolowski, John. Devices for dispensing tinsel and the like adaptable for decorating Christmas trees. 3,494,235, 2-10-70, Cl. 83-225.

Poston, Jerry W. Protective curtain assembly. 3,490,815, 1-20-70, Cl. 308-3.5

Postorino, Pasquale: *See—*
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Potakis, Angelos A.: *See—*
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Potapievsky, Arkady Grigorievich; and Lapchinsky, Vsevolod Feodosievich. Method of arc welding and building up of parts. 3,519,780, 7-7-70, Cl. 219-76.

Potash, Norman, to United States of America, Army. Mask inlet valve cap assembly. 3,513,840, 5-26-70, Cl. 128-142.6

Potasse & Engrais Chimiques: *See—*
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Trimbach, Honore; and Villard, Alexandre, 3,519,413.

Potdevin Machine Company: *See—*
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Poteat, George A., to Engineered Plastics, Incorporated. Multiple storage tray structure. 3,515,283, 6-2-70, Cl. 211-55.

Poterfield, Erik A., to Columbia Broadcasting System, Inc. Hub for endless magnetic tape cartridge. 3,550,872, 12-29-70, Cl. 242-55.19

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Poth, Harold E. Shoe box carrying device. 3,495,760, 2-17-70, Cl. 229-52.

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Keller, Harold A., 3,533,518.
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Elarde, Vito D.; Potocki, Edward A.; and Gajewski, Henry M.,3,505,278.

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Potoroka, Walter, Sr.Fisherman's water temperature locating apparatus. 3,540,023, 11-10-70, Cl. 340-227.1

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Potruch, Robert A., to Lumidor Products Corporation. Clip-type wire connector. 3,506,944, 4-14-70, Cl. 339-95.

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Potter Brothers, Inc.: *See—*
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Potter, Carl R.; Clements, John A.; and Mooney, James J., Jr., to General Motors Corporation. Hydraulic unit and control linkage with overload control. 3,504,493, 4-7-70, Cl. 60-52.

Potter, Charles, to American Vitrified Products Company. Gaskets for sealing joints between the bell and spigot of drain pipe. 3,510,139, 5-5-70, Cl. 277-198.

Potter, Edgar L., Jr., to United States of America, Army. Signal controlled sweep circuit. 3,524,140, 8-11-70, Cl. 328-181.

Potter, Frank J., to Stromberg-Carlson Corporation. Electrical switching arrangements including triggerable avalanche devices. 3,543,051, 11-24-70, Cl. 307-252.

Potter, Frank, to Filing Systems, Inc. Filing device. 3,540,786, 11-17-70, Cl. 312-184.

Potter, Frederick Milton, to Bendix Corporation, The. Bearing failure sensing device. 3,508,241, 4-21-70, Cl. 340-269.

Potter, Gene Barrack, to Scientific Data Systems, Inc. Transistor with integral pinch resistor. 3,510,735, 5-5-70, Cl. 317-235.

Potter, Geoffrey Wilfred Hassey: *See—*
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Potter, Howard L.: *See—*
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Potter, Howell L., to Textron, Inc. Bearing retainer. 3,502,376, 3-24-70, Cl. 308-193.

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Altonji, John A.; and Vaiana, Joseph G., 3,518,647.
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French, Michael B., 3,541,546.
Gabor, Andrew, 3,505,661.
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Potter, John T.; Foley, Thomas P.; and Antonucci, Carmine J., to Potter Instrument Company, Inc. Modular assembly for high speed chain printers. 3,499,382, 3-10-70, Cl. 101-93.
Potter, Millar D.; and Parks, John H., to Caterpillar Tractor Company. Fuel priming pump. 3,500,759, 3-17-70, Cl. 103-175.
Potter, Nelson H.: *See—*
Ford, Floyd E.; Liwski, Piotr P. M.; Potter, Nelson H.; and Sizemore, Kenneth,3,505,584.
Potter, Ralph M.; and Galginaitis, Simeon V., to General Electric Company. Light-emitting phosphor-diode combination. 3,529,200, 9-15-70, Cl. 313-108.
Potter, Richard M., to North American Rockwell Corporation. Creep-form tooling. 3,550,422, 12-29-70, Cl. 72-342.
Potter, Robert J.: *See—*
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Potter, Roderick B., to Allis-Chalmers Manufacturing Company. Apparatus for and method of indicating progressive failure of keyed connection. 3,513,802, 5-26-70, Cl. 116-114.
Potter, Thomas C.; and Burt, George H., to Interlake Steel Corporation. Packaging machine. 3,538,993, 11-10-70, Cl. 198-35.
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Richmond, William J.; Griffiths, Leonard B.; and Potter, Vernon C.,3,548,948.
Potter, William N., III, to Du Pont de Nemours, E. I., and Company. Textile fiber finish composition. 3,518,184, 6-30-70, Cl. 252-8.75
Pottgiesser, Hermann; and Schnell, August, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Apparatus for uniform discharge of liquid or pastry fertilizers. 3,497,139, 2-24-70, Cl. 239-223.
Pottie, James C., to Nova Scotia Research Foundation. Process for preparing a fish product. 3,493,391, 2-3-70, Cl. 99-111.
Pottinger, Eugene A., to General Electric Company. Valve assembly. 3,537,475, 11-3-70, Cl. 137-613.
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Potts, Harold S. Wind motor wheel. 3,513,326, 5-19-70, Cl. 290-55.
Potts, James E., to Union Carbide Corporation. Process for making ethylene-vinyl acetate copolymers of low melt index, and wax compositions containing the copolymers. 3,530,084, 9-22-70, Cl. 260-28.5
Potts, John W., to United States of America, Army. Inspection fixture. 3,549,009, 12-22-70, Cl. 209-110.
Potts, Ralph H.; Miller, Eugene J., Jr.; and Mais, Ago, to Armour Industrial Chemical Company, mesne. Process for preparing N-monosubstituted secondary- alkyl amides from olefins. 3,530,153, 9-22-70, Cl. 260-404.
Potts, Richard E., to National Lead Company. Extended opening die casting machine. 3,491,826, 1-27-70, Cl. 164-303.
Potts, Richard M., to Johnson & Johnson. Dressing. 3,526,224, 9-1-70, Cl. 128-156.
Potts, Thomas Cecil, to Hudswell Clarke and Company Limited. Road carpeting machine. 3,550,511, 12-29-70, Cl. 94-46.
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Potts, William F., to Liberty Combustion Corporation. Ignition control. 3,510,236, 5-5-70, Cl. 431-29.
Potts, William F., to Liberty Combustion Corporation. Fluid fuel ignition control system. 3,514,240, 5-26-70, Cl. 431-26.
Potts, William F., to Liberty Combustion Corporation. Oil burner control system. 3,536,427, 10-27-70, Cl. 431-68.
Potts, William F.; and Duval, Francois, to Liberty Combustion Corporation. Reignite system. 3,529,910, 9-22-70, Cl. 431-27.
Potty, Leo J.: *See—*
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Potynski, Andrzej; and Rawski, Ryszard, to Politechnika Warszawska. Perforated tape reader. 3,524,574, 8-18-70, Cl. 226-198.
Potzick, Anthony J., to Mosler Safe Company, The. Combination lock with cam follower positioned, cumulatively arrested tumbler elements. 3,518,856, 7-7-70, Cl. 70-299.
Potzl, Friedrich, to U.S. Philips Corporation, mesne. Single high-frequency interaction gap klystron with means for increasing the characteristic impedance. 3,521,116, 7-21-70, Cl. 315-5.
Poubeau, Pierre, to Nord-Aviation Societe Nationale de Constructions Aeronautiques. Rapid photo-detector cell with high sensitivity. 3,488,501, 1-6-70, Cl. 250-83.6
Pouch, Thomas M.; and York, Kenneth V., to Multifastener Corporation. Nut-panel assembly and method of installing nut. 3,506,050, 4-14-70, Cl. 151-41.73
Poucher, Frederick W., Jr.: *See—*
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Pouget, Joseph. Method of and composition for anticontracturant and local anesthesia using mephenesin acetylsalicylate. 3,506,762, 4-14-70, Cl. 424-230.
Pouilloux, Jacques, to Pneumatiques Caoutchouc Manufacture et Plastiques Kleber-Colombes. Method and machine for cutting rubberised fabric. 3,503,291, 3-31-70, Cl. 83-42.
Pouit, Robert. Electromagnetic generators. 3,541,362, 11-17-70, Cl. 310-15.
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Poulett, Anthony, to Ampex Corporation. Apparatus for recording and reproducing television or other broad band signals with an altered time base effect. 3,548,095, 12-15-70, Cl. 178-6.6
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Poulsen, Ronald D., to Poulsen, Alden. Gate valve. 3,521,665, 7-28-70, Cl. 137-383.
Poulson, Homer David. Thread grinder. 3,533,194, 10-13-70, Cl. 51-232.
Poulter, Howard C., to Hewlett-Packard Company. Directional couplers having directivity enhancing means. 3,508,170, 4-21-70, Cl. 333-10.
Poumakis, Eleuthere, to Potter Instrument Company, Inc. Circuit responsive to information pulse groups. 3,508,160, 4-21-70, Cl. 328-119.
Poumakis, Eleuthere: *See—*
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Pound, Alan E.; and Bornstein, Dov, to Philco-Ford Corporation, mesne. Versatile logic circuit module. 3,510,787, 5-5-70, Cl. 328-206.
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Poupin, Raymond, to Service d'Exploitation Industrielle des Tabacs et des Allumettes. Method and device for conveying rod-shaped objects, and especially cigarettes, between two levels. 3,529,713, 9-22-70, Cl. 198-165.
Poupin, Raymond, to Service d'Exploitation Industrielle des Tabacs et des Allumettes. Device for controlling a machine component over a range of speeds of a moving system. 3,534,225, 10-13-70, Cl. 317-5.
Poupitch, Ougjesa Jules, to Illinois Tool Works Inc. Method and apparatus for producing a covered top container. 3,488,911, 1-13-70, Cl. 53-27.
Poupitch, Ougljesa J., to Illinois Tool Works Inc. Method and apparatus for welding rivet type metallic fasteners. 3,488,466, 1-6-70, Cl. 219-99.
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Pour, Ivan. Air coupling arrangement for trailer trains. 3,521,907, 7-28-70, Cl. 280-421.
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Povinger, Bela P. Pressure control apparatus. 3,548,865, 12-22-70, Cl. 137-486.
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Povoden, Bruno, to Microdot Inc., mesne. Adjustable roller support for sliding doors. 3,512,209, 5-19-70, Cl. 16-105.

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Powell, Anthony Harvey: *See—*
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Pratt, Richard J., to Sinclair Research, Inc. Thermosetting styrene-maleimide copolymer having N-2,3-epoxypropyl or N-aminoethyl groups, their preparation and coating compositions containing same. 3,494,979, 2-10-70, Cl. 260-836.
Pratt, Richard J.; and Conboy, Robert J., to Sinclair Research, Inc. Process of preparing polyimides of styrene- maleic anhydride polymers. 3,520,852, 7-21-70, Cl. 260-78.
Pratt, Richard J.; and Diefenbach, Richard K., to Sinclair Research, Inc. Method of flocculating an aqueous suspension of solid inorganic particles. 3,507,787, 4-21-70, Cl. 210-54.
Pratt, Richard J.; Jansma, Roger H.; and Conboy, Robert J., to Sinclair Research, Inc. Water dispersible half esters of styrene-maleic anhydride copolymers with N-hydroxy alkyl amides of unsaturated fat acids. 3,528,939, 9-15-70, Cl. 260-29.6
Pratt, Richard J.; Safford, Donald E.; and Hoock, William S., to Sinclair Research, Inc. Process for coating open-top porous containers. 3,511,692, 5-12-70, Cl. 117-94.
Pratt, Richard J.; and Young, David W., to Sinclair Research, Inc. Set retarded plaster composition. 3,544,344, 12-1-70, Cl. 106-111.
Pratt, Richard J.: *See—*
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Pratt, Robert A., to Clark Equipment Company. Container chassis. 3,508,762, 4-28-70, Cl. 280-81.
Pratt, Robert H., to Pratt Manufacturing Corporation. Article-separating packages for flat articles such as surgical supplies. 3,507,087, 4-21-70, Cl. 53-29.
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Prave, Paul; and Summ, Hans-Dieter, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process for preparing a lipolytic enzyme. 3,511,753, 5-12-70, Cl. 195-62.
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Cormany, Charles L.; Dial, William R.; and Pray, Blaine O.,3,499,047.
Cormany, Charles L.; Dial, William R.; and Pray, Blaine O.,3,535,392.
Cormany, Charles L.; Dial, William R.; and Pray, Blaine O.,3,549,715.
Pray, Lester W., to Maremont Corporation. Bobbin orienting and loading apparatus. 3,531,016, 9-29-70, Cl. 221-13.
Prchal, Gordon L.; and Kulus, Richard W., to Pako Corporation. Stable photographic developers containing ascorbic acid. 3,512,981, 5-19-70, Cl. 96-66.4
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Preble, Harry. Collapsible wig stand forming its own carrying case. 3,515,318, 6-2-70, Cl. 223-66.
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Prechtl, Gregory D.: *See—*
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Prechtl, Robert A.; and Prechtl, Gregory D. Collapsible stretch frame and canvas. 3,494,409, 2-10-70, Cl. 160-374.1
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Precision Chemical Pump Corporation: *See—*
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Watts, Claude H., 3,520,350.
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Cropper, Walter V.; and Carlstedt, Paul R., 3,521,480.
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Preddy, Genadius M.; and Upchurch, William B., to Corning Glass Works. Stencil screen and method. 3,507,653, 4-21-70, Cl. 96-36.4
Preddy, Genadius M.; and Upchurch, William B., to Corning Glass Works. Thin emulsion deposition stencil screen and method. 3,510,303, 5-5-70, Cl. 96-36.4
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Pregagli, Gianfranco; and Gregorio, Guglielmo, to Montecatini Edison S.p.A. Process for preparing primary alkanols from 4,4. dialkylmetadioxanes. 3,541,161, 11-17-70, Cl. 260—632
Pregaglia, Gianfranco; Agamennone, Marco; and Cavalli, Luigi, to Montecatini Edison S.p.A. Process for preparing alkyl acrylates and methacrylates. 3,522,294, 7-28-70, Cl. 260-486.
Pregaglia, Gianfranco; Binaghi, Marco; and Roffia, Paolo, to Montecatini Edison S.p.A. Process for preparing polyoxymethylenic polymers. 3,492,271, 1-27-70, Cl. 260-67.
Pregaglia, Gianfranco; Bressan, Giancarlo; and Broggi, Renato, to Montecatini Edison S.p.A. Process for preparing hydrazocompounds. 3,527,805, 9-8-70, Cl. 260-569.
Pregaglia, Gianfranco; and Gregorio, Guglielmo, to Montecatini Edison S.p.A. Process for the dimerization of primary and secondary alcohols. 3,514,493, 5-26-70, Cl. 260-642.
Pregaglia, Gianfranco; Pozzi, Giancarlo; and Roffia, Paolo, to Montecatini Edison S.p.A. Polyoxymethylene copolymers from trioxane and cyclic alkenyl-acetals. 3,488,323, 1-6-70, Cl. 260-73.
Pregaglia, Gianfranco; Viviani, Bruno; and Agamennone, Marco, to Montecatini Edison S.p.A. Process for the catalytic chlorination of chloroalkanes. 3,535,394, 10-20-70, Cl. 260-658.
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Prem, Lawrence L., to North American Rockwell Corporation. Method for controlling a power generating system. 3,513,336, 5-19-70, Cl. 310-11.
Prem, Lawrence L., to North American Rockwell Corporation. Method and apparatus for generating pulse electrical power using a magnetohydrodynamic generator system. 3,549,915, 12-22-70, Cl. 310-11.
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Premo, Charles N., to Koehring Company, mesne. Bead exhaust assembly for a molding machine. 3,537,132, 11-3-70, Cl. 18-5.
Prena, William F., to Morrell, John, & Co. Product spacing structure. 3,537,229, 11-3-70, Cl. 53-112.
Prencipe, Luigi. Water discharge control for garden hoses. 3,502,270, 3-24-70, Cl. 239-458.
Prenco Manufacturing Company: *See—*
Hines, Eugene W.; McGrath, Timothy; and Herman, James A., 3,494,309.
Hines, Eugene W.; McGrath, Timothy; Lorenz, James E.; and Herman, James A., 3,516,777.
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Preradovich, Radovan H., to Gerole International Inc. Line pole rock anchor brackets. 3,514,911, 6-2-70, Cl. 52-165.
Presant, Fred; and Carrion, Carmelo, Jr., to Aerosol Techniques Incorporated. Self propelled liquid dispenser containing an antiperspirant aluminum salt. 3,544,258, 12-1-70, Cl. 222-192.
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Prescott, Herbert L., to Westinghouse Electric Corporation. Load tap changer apparatus employing parallel circuits comprising vacuum and no-load switches. 3,544,884, 12-1-70, Cl. 323-43.5
Prescott, Norman F.: *See—*
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Prescott, Roger; and Orr, Isaac Weaver, Jr., to Great Lakes Carbon Corporation. Process for the manufacture of continuous high modulus carbon yarns and monofilaments Mulhouse. 3,533,743, 10-13-70, Cl. 23-209.1
Prescott, William A., to Chance, A. B., Company, mesne. Rotor and manifold structure for joint of articulating aerial device. 3,542,068, 11-24-70, Cl. 137-615.
Prescott, William A.; Wacht, Raymond J.; and Stilwell, Jack E., to Chance, A. B., Company, mesne. Insulated remote control apparatus for articulated aerial device. 3,489,243, 1-13-70, Cl. 182-46.
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Presnell, Carlton E.: *See—*
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Presnick, Michael C. Lightweight collapsible shipping container. 3,517,849, 6-30-70, Cl. 220-4.
Press, Carl, to Dunlop Company Limited, The. Spot type disc brakes and adjusting means therefor. 3,490,562, 1-20-70, Cl. 188-73.
Press, Irving D., to Resistoflex Corporation. Treating extruded P.T.F.E. tubing. 3,534,436, 10-20-70, Cl. 18-6.

Press, Jack J. Adhesive compositions. 3,497,574, 2-24-70, Cl. 260-897.
Press, Jack J. Preferentially modified stereoregular polyhydrocarbons. 3,505,429, 4-7-70, Cl. 260-857.
Press, Jay L. Intelligence testing device. 3,543,418, 12-1-70, Cl. 35-22.
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Butler, Roger David; Bowers, Ian Frederick; and Colley, Cedric Charles Edward, 3,529,458.
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Pressel, Paul I.; and Loudon, Allen J., to Bendix Corporation, The. Low profile antenna. 3,488,657, 1-6-70, Cl. 343-708.
Presslauer, Siegfried, to Tower Iron Works, Inc. Blanking plate for gas flow passages. 3,527,440, 9-8-70, Cl. 251-187.
Pressley, Felix H. Picker stick checking device. 3,507,306, 4-21-70, Cl. 139-162.
Presson, Donald R. Spray nozzle. 3,515,354, 6-2-70, Cl. 239-416.5
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Preston, Alton C. Waste basket holder. 3,524,692, 8-18-70, Cl. 312-322.
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Preston, Howard G.; Knerr, Barclay R.; and Halverson, Phillip C., to Brite-Lite Corporation of America. Bowling scorekeeper apparatus. 3,531,117, 9-29-70, Cl. 273-54.
Preston, Jerome A.; and Davis, Carlton J., Sr., to Owens-Corning Fiberglas Corporation. Polyolefin-organosilane graft polymers. 3,505,279, 4-7-70, Cl. 260-41.
Preston, John, and Company (Chemicals) Limited: *See—*
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Preston, Kendall, Jr.; and Norgren, Philip E., to Perkin-Elmer Corporation, The. Method and apparatus for detecting mitotic blood cells on a blood cell sample slide. 3,503,684, 3-31-70, Cl. 356-39.
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Preston, Martin. Mechanical torque converter. 3,540,308, 11-17-70, Cl. 74-751.
Preston, Martin. Mechanical torque converter. 3,540,310, 11-17-70, Cl. 74-752.
Preston, Norman R. Bandage applicator and cut-off device. 3,542,021, 11-24-70, Cl. 128-157.
Preston, Raymond David. Picture frames. 3,546,802, 12-15-70, Cl. 40-152.
Preston, William M., to Phillips Petroleum Company. Flow control. 3,490,240, 1-20-70, Cl. 61-0.5
Pressler, Harold D., to Allis-Chalmers Manufacturing Company. Apparatus for and method of detecting temperature conditions of material being processed in rotary kiln or the like. 3,496,774, 2-24-70, Cl. 73-351.
Preti, Jean-Claude, to Societe de Fabrication d'Instruments de Mesure (S.F.I.M.). Method of measuring the spacing of two moving vehicles and a device for the performance thereof, and their application to the evaluation of the traffic density of vehicles. 3,501,763, 3-17-70, Cl. 343-12.
Preti, Jean Claude, to Societe de Fabrication d'Instruments de Mesure (S.F.I.M.). Frequency memory for an oscillator to act during interruptions in control pulses. 3,506,968, 4-14-70, Cl. 340-173.
Pretorius, Victor; and Hahn, Hans Helmut. Chromatography. 3,493,497, 2-3-70, Cl. 210-31.
Pretorius, Victor; and Hahn, Hans Helmut. Chromatographic processes and apparatus. 3,522,172, 7-28-70, Cl. 210-31.
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Prevett, Peter Dominick; and Morin, Theodore Joseph, to Industrial Magnetics, Inc. Conductive solids welding circuitry. 3,526,782, 9-1-70, Cl. 307-141.
Previte, Robert W., to Grace, W. R., & Co. Dialdehyde starch hydraulic cement composition additive. 3,503,768, 3-31-70, Cl. 106-92.
Prevorsek, Dusan C.; and Lamb, George E. R., to Allied Chemical Corporation. Blends of polyamides, polyester and polyolefins containing minor amounts of elastomers. 3,546,319, 12-8-70, Cl. 260-857.
Prevorsek, Dusan C.; Lamb, George E. R.; and Oswald, Hendrikus J., to Allied Chemical Corporation. Method of fibrillation and product. 3,506,535, 4-14-70, Cl. 161-177.
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Prew, Thomas Benjamin, to Stafford Tool and Die Company Limited. Cutting presses. 3,541,586, 11-17-70, Cl. 83-527.
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Faehling, Francis L.; and Peterson, Stanley O., 3,549,859.
Prezzi, Claudio; and Odone, Giovanni, to Paillard S.A. Electronic speed regulator for electric motors. 3,506,901, 4-14-70, Cl. 318-314.
Priaroggia, Paolo Gazzana, to Pirelli, S.p.A. Electrical cable joints. 3,544,700, 12-1-70, Cl. 174-15.
Pribbernow, Frederick G., to Sicks' Rainier Brewing Company. Method and apparatus for cleaning a bedded residue from a floor of the tank. 3,542,593, 11-24-70, Cl. 134-24.
Pribyl, Edward J.; and Bernstein, Jack, to Squibb, E. R., & Sons, Inc. 2-Substituted aminomethylcyclooctyl amides of alkyl substituted acetic acid. 3,510,505, 5-5-70, Cl. 260-557.
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Price, Charles B.; and Braun, Samuel, to Scovill Manufacturing Company. Blade inserter sheath for electric knife. 3,512,631, 5-19-70, Cl. 206-16.
Price, Charles Ronald: *See—*
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Price, David B., to Westinghouse Electric Corporation. Hair dryer. 3,543,412, 12-1-70, Cl. 34-99.
Price, David D., Jr.; Huckabay, William B.; and Price, Ford C., said Huckabay assor to Economy Company, The said Price, David D., Jr., and said Price, Ford C. Method and apparatus for teaching. 3,501,851, 3-24-70, Cl. 35-9.
Price, Desmond George, to Brightside Engineering (Stamco) Limited. Method of and machine for applying web to an article. 3,540,182, 11-17-70, Cl. 53-3.
Price, Don C., to Monarch Rubber Company, The, mesne. Method of making plate metal product with two-way extruded nut. 3,513,684, 5-26-70, Cl. 72-340.
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Price, Douglas Albert John. Reserved parking indicator. 3,538,882, 11-10-70, Cl. 116-135.
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Price, Frank D., to General Electric Company. Combination capacitor having a marginless metallized dielectric strip and a foil electrode. 3,522,498, 8-4-70, Cl. 317-258.
Price, Franklin Carr. Fluidized bed hearth construction. 3,508,341, 4-28-70, Cl. 34-57.
Price, George B., to Monsanto Company. Statistical computer. 3,551,666, 12-29-70, Cl. 235-179.
Price, Gerald W., to United States of America, Army. Square root apparatus. 3,551,662, 12-29-70, Cl. 235-158.
Price, Glenn R., to Stauffer Chemical Company. Flame resistant polyurethane compositions from bis-(hydroxypolyalkoxyalkyl) aminomethylphosphonates. 3,539,536, 11-10-70, Cl. 260-77.5
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Price, Howard; and Szilagyi, Bela, to International Patents & Development Corporation, mesne. Rotary and reciprocating mixer. 3,514,080, 5-26-70, Cl. 259-19.
Price, Howard; and Szilagyi, Bela, to International Patents & Development Corporation, mesne. Marking gun employing endless belt printing means. 3,521,555, 7-21-70, Cl. 101-103.
Price, Howard; and Szilagyi, Bela, to International Patents & Development Corporation, mesne. Electrically operated marking device. 3,524,407, 8-18-70, Cl. 101-103.
Price, Howard; and Szilagyi, Bela, to International Patents & Development Corporation. Collapsible umbrella. 3,538,928, 11-10-70, Cl. 135-20.
Price, Howard; and Szilagyi, Bela, said Szilagyi assor. to said Price. Settable disks for drum series printing wheels in self-inking hand stamps. 3,541,955, 11-24-70, Cl. 101-108.
Price, Jack G.: *See—*
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Price, John A.; and Achon, Marco A. Catalytic system containing disubstituted carbamates. 3,542,693, 11-24-70, Cl. 252-429.
Price, John A.; and Carlson, Otto K., to FMC Corporation. Use of metal stannate polycondensation catalysts in preparing polyethylene terephthalate. 3,489,720, 1-13-70, Cl. 260-75.
Price, John A.; and Mervine, Robert P., to FMC Corporation. Method for preparing polyethylene terephthalate using hydroxide direct esterification catalysts. 3,491,072, 1-20-70, Cl. 260-75.
Price, John A.; and Stewart, Mary J., to FMC Corporation. Process for preparing polyesters with cadmium, lead, zinc, or manganese hydroxide as a trans- esterification catalyst. 3,489,721, 1-13-70, Cl. 260-75.
Price, John A.; and Stewart, Mary J., to FMC Corporation. Preparation of polyesters with nickel, manganese, aluminum, or cadmium borate as polycondensation catalysts. 3,522,216, 7-28-70, Cl. 260-75.
Price, John A.: *See—*
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Stewart, Mary J.; and Price, John A.,3,533,994.
Stewart, Mary J.; and Price, John A.,3,536,667.
Stewart, Mary J.; and Price, John A.,3,538,045.
Stewart, Mary J.; and Price, John A.,3,542,738.
Price, John Clifford; and Kitajewski, Ryszard, to International Standard Electric Corporation. Analog-to-digital converter. 3,495,234, 2-10-70, Cl. 340-347.
Price, John Roy, to Benedum, Paul G. Wand for use in playing a dexterity game. 3,514,898, 6-2-70, Cl. 46-177.
Price, Kenneth E., to Rainbow Lifegard Products Inc. Steering attachment for swimming pool vacuum head. 3,547,458, 12-15-70, Cl. 280-47.34
Price, Kenneth R.; and Martin, Fred J., to General Electric Company. Flame retardant epoxy resins. 3,519,697, 7-7-70, Cl. 260-830.
Price, Kenneth. Automatic headlight control system including windshield wiper motor. 3,500,119, 3-10-70, Cl. 315-82.
Price, Martin B.: *See—*
Wissbrun, Kurt F.; Bereardinelli, Frank M.; and Price, Martin B.,3,488,322.
Price, Michael Stuart Thomas: *See—*
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Price, Murray; and Jensen, Otto, to I-T-E Imperial Corporation, mesne. Capacitor by-pass protective system. 3,534,227, 10-13-70, Cl. 317-12.
Price, Norman A., to Rusco Industries, Inc. Auxiliary leg and bracket assembly for bedframes. 3,497,881, 3-3-70, Cl. 5-310.
Price, Paul S.; and Slater, William M., to Conenco Canada Limited. Reinforced elastomeric bearing. 3,544,415, 12-1-70, Cl. 161-44.
Price, Peter Michael Myatt: *See—*
Espig, Hans Roger; Price, Peter Michael Myatt; and Vinni Combe, Glyn Alan,3,521,532.
Price, Ralph E., to Litton Industries, Inc. Diamond roller dresser. 3,526,058, 9-1-70, Cl. 51-5.
Price, Raymond C. Sample display fixture. 3,528,560, 9-15-70, Cl. 211-178.
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Price, Richard Thompson: *See—*
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Price, Robert E., to Gulf Oil Corporation. Continuous removal of hydrofluoric acid from an alkylate hydrocarbon stream. 3,527,840, 9-8-70, Cl. 260-683.48
Price, Robert J.: *See—*
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Price, Steven: *See—*
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Price, Thomas F., Jr. Apparatus for humanely killing minks and the like. 3,548,447, 12-22-70, Cl. 17-1.
Price, Warren H.: *See—*
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Price, William L.: *See—*
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Price, William L., to Westinghouse Electric Corporation. Synchronous digital counter. 3,548,319, 12-15-70, Cl. 328-41.
Price, William L.; and Jackson, Don M., Jr., to Motorola, Inc. Monolithic integrated circuit substructure with epitaxial decoupling capacitance. 3,544,863, 12-1-70, Cl. 317-235.
Price, William. Quickly removable drum head. 3,533,324, 10-13-70, Cl. 84-411.
Price-Pfister Brass Mfg. Co.: *See—*
Lyon, John K., 3,533,444.
Priceman, Seymour; and Sama, Lawrence, to Sylvania Electric Products, Inc. Art of protectively metal coating columbium and columbium-alloy structures. 3,540,863, 11-17-70, Cl. 29-191.2
Pricenski, Theodore J.; and Plaisted, Alan H., to Sylvania Electric Products, Inc. Electric heater for heating fluids flowing longitudinally therethrough. 3,551,643, 12-29-70, Cl. 219-381.
Pricer, Wilbur D., to International Business Machines Corporation. Monolithic associative memory cell. 3,492,661, 1-27-70, Cl. 340-173.
Pricer, Wilbur D.: *See—*
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Prichard, Evan S., to Challenge-Cook Bros., Incorporated, Industry. Safety guard for hinged chutes. 3,542,179, 11-24-70, Cl. 193-5.
Prichard, John S.; and Algase, Lawrence I., to United States of America, Navy. Means for avoiding sea return. 3,508,264, 4-21-70, Cl. 343-18.
Prichett, Peter P.: *See—*
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Priddle, John Edward, to Imperial Chemical Industries Limited. Laminated glass structures. 3,532,590, 10-6-70, Cl. 161-183.

Priddy, Duane B.; and Hennis, Henry E., to Dow Chemical Company, The. Chloromethyl bisphenol A ethers. 3,546,299, 12-8-70, Cl. 260-613.
Priddy, Duane B.; and Hennis, Henry E., to Dow Chemical Company, The. Isopropylidene diphenol ether derivatives. 3,548,009, 12-15-70, Cl. 260-613.
Priddy, William S., Jr. Carrier for small animals. 3,509,855, 5-5-70, Cl. 119-19.
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Priebe, James Alexander, to Du Pont de Nemours, E. I., and Company. Process for cleaning gel deposits from polymer transfer lines. 3,510,350, 5-5-70, Cl. 134-22.
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Priebe, Norman F., to Sperry Rand Corporation. Digital demodulator network. 3,488,600, 1-6-70, Cl. 329-110.
Priebs, Horst, to Anker-Werke Aktiengesellschaft. Method and apparatus for issuing electric control pulses by contact switching in key-actuated accounting, calculating or the like machines. 3,497,680, 2-24-70, Cl. 235-60.4
Priefert, Erwin E. Irrigation pipe loader. 3,515,296, 6-2-70, Cl. 214-77.
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Priel, Ury; and Hively, James W., to Motorola, Inc. Logic element (full adder) using transistor tree-like configuration. 3,519,810, 7-7-70, Cl. 235-176.
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Priese, Werner K., to Hills-McCanna Company. Ball valve having progressive engagement of ball and yieldable seat. 3,497,176, 2-24-70, Cl. 251-172.
Priese, Werner K., to Hills-McCanna Company. Ball valve with movable yieldable polymeric seats. 3,497,178, 2-24-70, Cl. 251-174.
Priese, Werner K., to Hills-McCanna Company. High temperature ball valve. 3,537,682, 11-3-70, Cl. 251-214.
Priesemuth, Wolfgang. Generator means. 3,508,069, 4-21-70, Cl. 290-1.
Priesemuth, Wolfgang. Control relay. 3,526,862, 9-1-70, Cl. 335-159.
Priesing, Charles P.; Mogelnicki, Stanley J.; Schwark, Gerald J.; and Daniels, Stacy L., to Dow Chemical Company, The. Flocculation with modified anionic polymers. 3,539,510, 11-10-70, Cl. 210-52.
Priesmeyer, Charles, to Meyer & Wenthe, Inc. Print-embossing seal press. 3,522,769, 8-4-70, Cl. 101-3.
Priest, Benjamin H., Jr. Flashing retrodirective reflector. 3,551,024, 12-29-70, Cl. 350-99.
Priest, Gerald G.: *See—*
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Priest, Lyle G., to Information Design, Inc. Tape cartridge. 3,512,734, 5-19-70, Cl. 242-197.
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Priest, Lyle G., to Information Design, Inc. Apparatus for connecting film tapes to winding roll of projectors. 3,539,131, 11-10-70, Cl. 242-195.
Priest, William J.; and Marshall, Akemi S., to Eastman Kodak Company. Light sensitive vesicular composition comprising an azido-s-triazine compound. 3,532,500, 10-6-70, Cl. 96-91.
Priest, William J.: *See—*
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Priestley, Hill M.; and Wilson, James H., to Lever Brothers Company. Methyl-2-hydroxyalkyl sulfoxides. 3,491,154, 1-20-70, Cl. 260-607.
Priestley, Leslie: *See—*
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Priestman, Francis Dennis, to Rootes Motors Limited. Raising and lowering regulators. 3,516,199, 6-23-70, Cl. 49-40.
Prieto, Anthony, to RCA Corporation. Computer memory addressing. 3,551,898, 12-29-70, Cl. 340-172.5
Prieur, Jean. Tree support. 3,505,761, 4-14-70, Cl. 47-43.
Priewe, Herbert E. Picnic tables. 3,542,420, 11-24-70, Cl. 297-157.
Prigal, Samuel J. Emulsion compositions and methods. 3,492,399, 1-27-70, Cl. 424-91.
Prigge, Helmut: *See—*
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Prijatel, Edward A., to Parker-Hannifin Corporation. Rotary pump. 3,499,390, 3-10-70, Cl. 103-126.
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Prikkel, John, III, to General Motors Corporation. Mold design for self-application of release agent. 3,525,783, 8-25-70, Cl. 264-39.
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Prince, Arthur E., Jr., to Celanese Corporation. Process for the polymerization of aromatic polybenzimidazoles. 3,551,389, 12-29-70, Cl. 260-78.4
Prince, Arthur E., to Celanese Corporation. Preparation of polybenzimidazoles. 3,509,108, 4-28-70, Cl. 260-78.4
Prince, Leon M., to Lever Brothers Company. Cleaning towel. 3,491,495, 1-27-70, Cl. 51-394.
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Zwiep, Theodore C.; and Weits, Ferdinand, 3,522,738.
Zwiep, Theodore C.; and Weits, Ferdinand, 3,533,130.
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Prince, Paul R.: *See—*
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Prince, Roy W., to Grace, W. R., and Company. Offset blanket and process therefor. 3,535,193, 10-20-70, Cl. 161-88.
Prince, Roy W.; and Uy, Manuel C., to Grace, W. R., & Co. Saddles for flexible thin printing plates. 3,537,395, 11-3-70, Cl. 101-378.
Prince, Terry B.: *See—*
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Princen, Hermanus H., to Shell Oil Company. Apparatus for producing thermoplastic film. 3,507,006, 4-21-70, Cl. 18-14.
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Princeton Applied Research Corporation: *See—*
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Princeton Gamma-Tech, Inc.: *See—*
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Diassi, Patrick A.; and Principe, Pacifico A.,3,488,733.
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Levine, Seymour D.; and Principe, Pacifico A.,3,531,517.
Pan, Samuel C.; Principe, Pacifico A.; Junta, Barbara; and Cohen, Allen I.,3,488,365.
Pan, Samuel C.; Principe, Pacifico A.; and Lerner, Leonard J.,3,546,260.
Pan, Samuel Cheng; Semar, Joan; Principe, Pacifico A.; and Lerner, Leonard Joseph,3,526,576.
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Prindle, Frank D.: *See—*
DeWeese, Raymond P.; Meisinger, Elmer H.; and Prindle, Frank D.,3,500,815.

Prine, David W., to Magnaflux Corporation. Microwave flaw detection system having horns positioned with their polarization directions transverse to each other. 3,549,986, 12-22-70, Cl. 324-58.5

Prine, David W.; and Flaherty, John J., to Magnaflux Corporation. Non-destructive microwave testing system for wire. 3,525,934, 8-25-70, Cl. 324-58.5

Pringle, William L.: *See—*
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Pringle, William L., to Robbins, Jim, Seat Belt Co. Linear retractor construction. 3,542,425, 11-24-70, Cl. 297-388.

Pringle, William L., to Radke, Lee, Associates, Inc. Remote adjustable mirror. 3,550,456, 12-29-70, Cl. 74-501.

Pringle, William L.; and Cucheran, John S., to Radke, Lee, Associates, Inc. Remotely controlled rear view mirror. 3,550,468, 12-29-70, Cl. 74-501.

Prino, Giuseppe: *See—*
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Schroter, Herbert; and Prins, Daniel A.,3,519,718.
Schroter, Herbert; and Prins, Daniel A.,3,546,275.

Prins, Gerard C., to Bell Telephone Laboratories, Incorporated. Answer tone detection circuit. 3,536,839, 10-27-70, Cl. 179-2.

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Printing Arts Research Laboratories, Inc.: *See—*
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Printing Developments, Inc.: *See—*
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Printing Machinery Company, The: *See—*
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Maschinot, Howard R., 3,504,587.

Printz, William A. Building siding applicator tool. 3,490,152, 1-20-70, Cl. 33-188.

Prinz, Hans; Wiesinger, Johannes; and Konig, Rudolf, to Dehn & Sohne. Emergency shelter in the form of a tent or the like. 3,547,136, 12-15-70, Cl. 135-1.

Prinz, Roy H.; and Kerr, Bob C., to Celanese Corporation. Stabilized aqueous solutions of 30 to 80% formaldehyde. 3,532,756, 10-6-70, Cl. 260-606.

Prior, Arthur Cunningham, to National Research Development Corporation. Manufacture of superconductors. 3,533,919, 10-13-70, Cl. 204-38.

Prior, William L., to Apyrco, Inc. Method of applying gelled water soluble coatings as parting agents. 3,531,311, 9-29-70, Cl. 106-300.

Priou, Jacqueline J.: *See—*
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Priscu, John C., to Titanium Metals Corporation of America. Sizing shear. 3,510,077, 5-5-70, Cl. 241-241.

Priscu, John C. Disk shear. 3,517,890, 6-30-70, Cl. 241-141.

Prisk, Bert C.; and Johnson, Aran S., to General Motors Corporation. Method and apparatus for substernal cardiac massage. 3,496,932, 2-24-70, Cl. 128-64.

Prismo Safety Corporation: *See—*
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Pritchard, Dalton H., to RCA Corporation. Color image projection system. 3,527,879, 9-8-70, Cl. 178-5.4

Pritchard, Edwin J., to Western Electric Company, Incorporated. Method and apparatus for rapid gold plating integrated circuit slices. 3,536,594, 10-27-70, Cl. 204-27.

Pritchard, George Wellesley; and Chandler, Gordon Spencer, to Booth Engineering Limited. Solid state circuit breakers. 3,532,937, 10-6-70, Cl. 317-33.

Pritchard, J. F., and Company: *See—*
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Proctor, Russell C., Jr.; and Weinstein, Henry, 3,529,426.

Pritchard, James E., to Phillips Petroleum Company. Protection of bearings from impact damage. 3,501,207, 3-17-70, Cl. 308-187.

Pritchard, John P., Jr.; Queen, Antoinette G.; Pierce, Joe T.; and Slay, Buford G., Jr., to Texas Instruments, Incorporated. Method for manufacturing multi layer film circuits. 3,540,954, 11-17-70, Cl. 156-3.

Pritchard, John P. Jr.; and Slay, Buford G., Jr., to Texas Instruments, Incorporated. Dynamic fault tolerant information processing system. 3,524,165, 8-11-70, Cl. 340-146.1

Pritchard, Lee Arthur, to American Can Company. Dispensing carton with throat band element. 3,490,646, 1-20-70, Cl. 221-310.

Pritchard, Sheldon S., Jr., to U.S. Plywood-Champion Papers Inc. Send and return mailing envelope and package. 3,512,702, 5-19-70, Cl. 229-73.

Pritchard, William T., 1/4 to Ashworth, John C., and Ashworth, Robert J. Automatic brake releasing means. 3,511,347, 5-12-70, Cl. 188-216.

Pritchett, Robert L., to Bell Telephone Laboratories, Incorporated. Radio frequency power transistor with individual current limiting control for thermally isolated regions. 3,500,066, 3-10-70, Cl. 307-235.

Pritchett, William C.; and Calkins, Ray L., to Atlantic Richfield Company. Borehole telemetering system. 3,514,750, 5-26-70, Cl. 340-18.

Pritchett, William C.: *See—*
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Pritulsky, James, to AMP Incorporated. Electrical connector assembly. 3,546,656, 12-8-70, Cl. 339-16.

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Pritz, Howard B.: *See—*
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Pritzkow, Wilhelm: *See—*
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Priva-Phone, Inc.: *See—*
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Prival, Harris G. Gas analysis apparatus having oppositely energized air gaps. 3,539,913, 11-10-70, Cl. 324-36.

Private Tele-Communications, Inc.: *See—*
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Privett, John A.: *See—*
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Privott, Wilbur J., Jr.: *See—*
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Prober, Richard, to Shell Oil Company. Electrolytic cyclone separator and cell. 3,527,617, 9-8-70, Cl. 136-86.

Probst, Georg; and Herterich, Walter, to Grundig E.M.V. Elektro-Mechanische Versuchsanstalt Inh.: Max Grundig. Sound recording and reproducing apparatus. 3,550,983, 12-29-70, Cl. 274-4.

Probst, John F., to P.A.L. Development Corporation. Roofing construction. 3,541,745, 11-24-70, Cl. 52-105.

Probst, John F., to P.A.L. Development Corporation. Apparatus for removing roofing. 3,542,433, 11-24-70, Cl. 299-37.

Probst, Richard O.: *See—*
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Probst, Willi: *See—*
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Procacino, Robert, to Elco Corporation. Apparatus for welding conductors separated by thermoplastic insulation. 3,538,293, 11-3-70, Cl. 219-86.

Process Design, Inc.: *See—*
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Process Engineering Company, S.A.: *See—*
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Process Equipment Co. of Tipp City: *See—*
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Process Industries, Incorporated: *See—*
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Prochazka, Jaroslav; Landau, Josef; and Souhrada, Frantisek, to Ceskoslovenska akademie ved. Apparatus for contacting at least two fluid phases. 3,488,037, 1-6-70, Cl. 259-4.

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Prochnow, Claus, to Rollei-Werke Franke & Heidecke. Carrying case for photographic cameras. 3,507,198, 4-21-70, Cl. 95-31.

Prochnow, Claus, to Rollei-Werke Franke & Heidecke. Photographic curtain-type shutter. 3,507,202, 4-21-70, Cl. 95-57.

Prochnow, Claus, to Rollei-Werke Franke & Heidecke. Supporting means for photographic cameras. 3,507,203, 4-21-70, Cl. 95-86.

Prochnow, Claus, to Rollei-Werke Franke & Heidecke. Photographic camera. 3,532,041, 10-6-70, Cl. 95-31.

Prochnow, Claus, to Rollei-Werke Franke & Heidecke. Photographic camera with reversible lens. 3,544,199, 12-1-70, Cl. 350-255.

Prochnow, Claus; and Bode, Kurt, to Rollei-Werke Franke & Heidecke. Rollfilm cassette. 3,507,197, 4-21-70, Cl. 95-31.

Prochnow, Claus; and Weiss, Richard, to Rollei-Werke Franke & Heidecke. Photographic camera. 3,507,200, 4-21-70, Cl. 95-51.

Prochnow, Rudolf, to Fernseh GmbH. Magnetic recording and erasing apparatus. 3,534,182, 10-13-70, Cl. 179-100.2

Prochnow, Rudolf; and Tebel, Norbert, to Fernseh G.m.b.H. Magnetic tape signal transducing apparatus. 3,505,466, 4-7-70, Cl. 178-6.6

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Procop, Alex J., to GAF Corporation. Web winding apparatus including means for preventing spill of the web. 3,501,111, 3-17-70, Cl. 242-202.

Procop, Alex J., to GAF Corporation, mesne. Gate construction for a moving picture projector. 3,528,732, 9-15-70, Cl. 352-224.

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Proctor, John B.; Hakes, Leo B.; and Merkley, Wayne R., to National Gypsum Company. Apparatus for making gypsum board. 3,532,576, 10-6-70, Cl. 156-348.

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Pruett, Roy L.; and Groves, Kenneth O., to Union Carbide Corporation. Hydroformylation of polycyclic diolefins. 3,499,932, 3-10-70, Cl. 260-598.
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Puckett, Eugene A., to Rite Way Mfg. Detachable container handling and material hauling apparatus. 3,520,428, 7-14-70, Cl. 214-302.

Puckett, Robert S., to Sparton Corporation. Differential pressure transducer. 3,533,293, 10-13-70, Cl. 73-407.

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Puegner, Thomas J.; and Brandon, Richard N., to Taylor, Halsey W., Company, The. Valves for liquid dispensing fountains. 3,514,075, 5-26-70, Cl. 251-156.

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Puente, John G., to Communications Satellite Corporation. System for reconstituting a carrier reference signal using a switchable phase lock loop. 3,525,945, 8-25-70, Cl. 329-50.

Puente, John G., to Communications Satellite Corporation. Acquisition technique for time division multiple access satellite communication system. 3,530,252, 9-22-70, Cl. 179-15.

Puente, John G.; and Schrempp, Winfried H., to Communications Satellite Corporation. Double aperture technique for detecting station identifying signal in a time division multiple access satellite communication system. 3,526,719, 9-1-70, Cl. 179-15.

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Pugh, William A., Sr. Lift and pull ring container. 3,520,464, 7-14-70, Cl. 229-17.

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Quenot & Cie s.a.r.l.: *See—*
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Quenot, Andre, 3,494,038.
Quenot, Andre, 3,517,780.
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Quenot, Andre, 3,520,487.
Quenot, Andre, to Quenot & Cie s.a.r.l. Automatic return device for tape measuring. 3,493,190, 2-3-70, Cl. 242-84.8
Quenot, Andre, to Quenot & Cie S.a.r.l. Linear measuring instruments with direct reading of internal measurements. 3,494,038, 2-10-70, Cl. 33-138.
Quenot, Andre. Tape measure. 3,494,569, 2-10-70, Cl. 242-84.8
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Quenot, Andre, to Quenot & Cie s.a.r.l. Magnetically-retained crank element for linear measuring instruments. 3,520,487, 7-14-70, Cl. 242-84.8
Quercia, Marcel, to Flaminaire Marcel Quercia. Gas lighter. 3,488,135, 1-6-70, Cl. 431-254.
Quercia, Marcel, to Flaminaire Marcel Quericia. Gas lighter. 3,533,720, 10-13-70, Cl. 431-277.

Quermann, Thomas R., to Sperry Rand Corporation. Gyroscopic rotor suspension. 3,529,477, 9-22-70, Cl. 74-5.
Quernheim, David E. Attachment for bar clamp. 3,499,206, 3-10-70, Cl. 29-239.
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Buck, Francis Fremonte; Querry, Merle Vernon; Barg, William Frederic, Jr.; and Gianonatti, Americo Valentine,3,497,492.
Query, Grady W. Feeder and package arrangement for fluent dry solids. 3,517,454, 6-30-70, Cl. 43-131.
Quesinberry, Arden L., to Westinghouse Electric Corporation. Radar transmitter. 3,525,940, 8-25-70, Cl. 325-120.
Quesnel, Guy, to Stein & Roubaix. Installation for burning sewage sludges. 3,521,581, 7-21-70, Cl. 110-8.
Quesnow, Erwin C., to Ronson Corporation. Combination pocker and table lighter. 3,544,252, 12-1-70, Cl. 431-253.
Questa, Charles R., to Burroughs Corporation. Queuer control system. 3,493,935, 2-3-70, Cl. 340-172.5
Quester, Karl Wilhelm, to Quester, Wilh. Device for providing a constant supply of material for processing. 3,528,538, 9-15-70, Cl. 198-57.
Quester, Karl Wilhelm. Device for providing a supply of material for processing. 3,532,207, 10-6-70, Cl. 198-44.
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Quetsch, Johann Peter, to Heinkel, Ernst, Maschinenbau GmbH. Sieve centrifuge. 3,494,472, 2-10-70, Cl. 210-374.
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Quick, David C.; and Marsch, James E., to Allis-Chalmers Manufacturing Company. Transmission control. 3,538,789, 11-10-70, Cl. 74-689.
Quick, Howard G., Jr., to Eastman Kodak Company. Device for battery retention. 3,488,698, 1-6-70, Cl. 248-309.
Quick, Kenneth C.; and Weir, Kenneth F. Vent safety switch for heating systems. 3,542,018, 11-24-70, Cl. 126-116.
Quick, Lloyd; and Mortoly, John L., to Taylor, James L., Manufacturing Company. Clamp tightening device for clamp carrier. 3,488,046, 1-6-70, Cl. 269-20.
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Quick, William H., to North American Rockwell Corporation. Vibrating string reference apparatus. 3,538,774, 11-10-70, Cl. 73-505.
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Quick-Rotan Becker & Co.: *See—*
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Buttery, Roger Alexander; and Turnbull, Thomas, 3,524,428.
Curtis, Donald, 3,539,322.
Quigg, Richard J.; and Collins, Henry E., to TRW Inc. Nickel base alloy having improved stress rupture properties. 3,526,499, 9-1-70, Cl. 75-171.
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Quigley, Warren W., to Gladwin Industries, Inc. Telephone mounting assembly. 3,511,942, 5-12-70, Cl. 179-146.
Quik, Willem C. J.; and van Weeren, Pieter A., to Shell Oil Company. Process for the catalytic conversion of hydrocarbons with steam. 3,530,194, 9-22-70, Cl. 260-672.
Quik, Willem J.; van Weeren, Pieter A.; and Kouwenhoven, Herman W., to Shell Oil Company. Hydrocracking catalyst containing carrier treated with a solution of NH_4F in HNO_3. 3,524,808, 8-18-70, Cl. 208-111.
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Quillery, Henri Paul Marcel; and Gonzalez, Georges, said Quillery assor. to Societe Quillery. Steering wheel with plastic foam sheathing. 3,523,464, 8-11-70, Cl. 74-552.
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Quimby, Oscar T., to Procter & Gamble Company, The. Carbonyldiphosphonates. 3,497,313, 2-24-70, Cl. 23-50.
Quimby, Oscar T., to Procter & Gamble Company, The. Detergent compositions containing propanepolyphosphonate compounds. 3,502,585, 3-24-70, Cl. 252-89.
Quimby, Oscar T. Compounds and detergent compositions containing them. 3,526,592, 9-1-70, Cl. 252-89.
Quimby, Oscar T., to Procter & Gamble Company, The. Built detergent compositions. 3,551,339, 12-29-70, Cl. 252-152.
Quimby, Oscar T.; and Prentice, James B., to Procter & Gamble Company, The. Diacetylated cyclic dimer of ethane-1-hydroxy-1,1-diphosphonic acid and salts thereof. 3,496,222, 2-17-70, Cl. 260-488.
Quimet, Emil R. Method of making shoe sole. 3,506,994, 4-21-70, Cl. 12-146.
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Quinby, Charles E., to Lear Siegler, Inc. Non-distorting component retaining structure. 3,489,016, 1-13-70, Cl. 74-5.
Quine, John P.; and Younger, Cousby, to United States of America, Air Force. Tapered mode selective absorber for use in high power waveguide systems. 3,543,199, 11-24-70, Cl. 333-98.
Quine, John P.; and Younger, Cousby, to United States of America, Air Force. Waveguide mode selective absorber. 3,546,635, 12-8-70, Cl. 333-21.
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Quinlan, Patrick M., to Petrolite Corporation. Polyglycidyl polymers as water clarifiers. 3,519,559, 7-7-70, Cl. 210-54.
Quinlan, Richard R. Infant garment. 3,540,450, 11-17-70, Cl. 128-287.
Quinlan, Robert V.; and Smierciak, Edward S., to International Telephone and Telegraph Corporation. Time-bandwidth reduction system and method for television. 3,538,247, 11-3-70, Cl. 178-7.1
Quinlan, William J.; and Huver, Lawrence L., to Hastings Manufacturing Company. Detachable windshield wiper blade unit. 3,541,629, 11-24-70, Cl. 15-250.42
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Quinn, Clark E., to General Motors Corporation. Photoelectric liquid level detector with checkout means which increases output of lamp to simulate low-level condition. 3,544,799, 12-1-70, Cl. 250-218.
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Quinn, Richard M.; and Candioto, Donny W., to Ball Brothers Company, Incorporated. Article presence-absence automatic monitoring device. 3,500,052, 3-10-70, Cl. 250-223.
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Quinones, Carlos M.; Shackelton, Cecil; and Williams, Richard H., said Williams assor. of 6 2/3% to said Quinones and 6 2/3% to said Shackelton. Burglar proof window grille. 3,506,056, 4-14-70, Cl. 160-160.

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Quinton, Harvey A.; and Quinton, Bernard. Compass ruler. 3,491,448, 1-27-70, Cl. 33-27.

Quinton, Wayne E.Control system for an exercise machine using patient's heart rate and heart rate acceleration. 3,518,985, 7-7-70, Cl. 128-2.06

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Quirk, Joseph R.: *See—*
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Quiros, Alvaro, to Susquehanna Corporation, The. Current regulator for providing a constant output current in a telegraph loop. 3,514,690, 5-26-70, Cl. 323-4.

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Quisenberry, Carter E., to American Machine & Foundry Company. Adjustable bicycle tank. 3,550,995, 12-29-70, Cl. 280-7.11

Quisenberry, Carter E., to American Machine & Foundry Company. Bicycle improvement. 3,551,004, 12-29-70, Cl. 280-281.

Quisenberry, Richard Keith, to Du Pont de Nemours, E. I., and Company. Regular sequential copolyesters. 3,492,273, 1-27-70, Cl. 260-75.

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Quissek, Manfred, to Aktiengesellschaft Brown, Boveri & Cie. Control device for feed systems of electro-filters. 3,529,404, 9-22-70, Cl. 55-105.

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Quittner, George F., to API Instruments Company. Adjustable reiterative network for signal processing. 3,505,645, 4-7-70, Cl. 340-172.

Quivy, Pierre, to Commissariat a l'Energie Atomique. Scaler reading device. 3,505,503, 4-7-70, Cl. 235-92.

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Qvey, Alphonso Lynn, Jr. Leaf pulverizing device. 3,526,261, 9-1-70, Cl. 146-107.

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Lemieux, Raymond Urgel; and Micetich, Ronald George, 3,522,252.

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R-N Acceptance Limited: *See—*
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Raab, August, to Fichtel & Sachs A.G. Welded shock absorber assembly. 3,503,474, 3-31-70, Cl. 188-100.

Raab, Hilary A., to East Chicago Machine Tool Corporation. Fluid operable system for baling equipment. 3,511,174, 5-12-70, Cl. 100-43.

Raab, Karl; Konig, Helmut; Stiefel, Christian; and Blank, Wilhelm, to Waggonfabrik Talbot. Mechanism for closing a one-shell roof for railway freight vehicles. 3,512,483, 5-19-70, Cl. 105-377.

Raab, Karl: *See—*
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Raabe, Erwin M., to Rheem Manufacturing Company. Reinforced container. 3,501,047, 3-17-70, Cl. 220-71.

Raabe, Fritz, to Plate, Dr., G.m.b.H. Chemische Fabrik. Laurolactam co-polyamide shaped articles having highly adhesive surfaces. 3,515,702, 6-2-70, Cl. 260-78.

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Raba, Joseph W. Intermediate directional attack reading machine. 3,488,866, 1-13-70, Cl. 35-35.

Raba, Joseph W. Pattern board for developing ocular motor coordination. 3,536,325, 10-27-70, Cl. 272-79.

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Rabatin, Jacob G., to General Electric Company. Lanthanum and gadolinium oxybromide luminescent materials activated with erbium. 3,546,128, 12-8-70, Cl. 252-301.4

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Rabe, Richard E.; and Carnevale, Arthur, Jr., to United States of America, Air Force. System for measuring area under a curve. 3,511,979, 5-12-70, Cl. 235-183.

Rabedeau, Melbourne E., to International Business Machines Corporation. Light deflector system. 3,514,183, 5-26-70, Cl. 350-160.

Rabedeaux, Richard W. Spectators coverall garment for outdoor events. 3,523,302, 8-11-70, Cl. 2-69.5

Rabello, Sabino Correa. Grills. 3,550,525, 12-29-70, Cl. 99-421.

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Klein, Phillip; Raben, Irwin; and Herrera, William R.,3,535,119.

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Rabenold, Ronald R.; and Kondrad, Edward S., to PPG Industries, Inc. Graft copolymers of unsaturated polyesters. 3,551,378, 12-29-70, Cl. 260-40.

Rabenstein, William M.; and Kojima, George, to United States of America, Interior. Annunciator system. 3,508,240, 4-21-70, Cl. 340-261.

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Rabindran, Karavattuveetil George, to Vapor Corporation. Controller for a temperature control system. 3,548,155, 12-15-70, Cl. 219-497.

Rabiner, Lawrence R., to Bell Telephone Laboratories, Incorporated. Voiced fricative synthesizer. 3,549,807, 12-22-70, Cl. 179-1.

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Nabiullin, Faat Khatovich; Koval, Ivan Ivanovich; Buzova, Zoya Mikhallovna; Gertsik, Efim Mikhallovich; Marfin, Boris Vasillevich; and Rabinovich, Vyacheslav Anatollevich,3,510,358.

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Rabinow, Jacob, 1/10 to Libman, Max L. Timer switch with double winding electric clock. 3,491,249, 1-20-70, Cl. 307-141.

Rabinow, Jacob, to Control Data Corporation. Multifont character reading machine. 3,496,542, 2-17-70, Cl. 340-146.3

Rabinow, Jacob, to Control Data Corporation. Optical code apparatus for sorting applications utilizing unique circuitous light path and setable vanes. 3,538,338, 11-3-70, Cl. 250-219.

Rabinow, Jacob, to Control Data Corporation. Character reading machine provided with an array of light-emitting diodes. 3,550,119, 12-22-70, Cl. 340-146.3

Rabinow, Jacob; and Gingras, William P., to Control Data Corporation. Document stacker and/or sorter. 3,531,108, 9-29-70, Cl. 271-64.

Rabinow, Jacob; and Glaeser, Leonard F., Jr., to Control Data Corporation. Optical reading machine. 3,538,499, 11-3-70, Cl. 340-146.3

Rabinowitz, Charles M., to Chandler Evans Inc. Duty cycle module. 3,543,166, 11-24-70, Cl. 328-58.

Rabinowitz, Lewis, to Ellar Products, Inc. Spectacle temple tensioner. 3,549,247, 12-22-70, Cl. 351-113.

Rabinowitz, Mario; and Lamont, Lawrence T., Jr., to Varian Associates. Electron orbiting getter vacuum pump employing a time varying magnetic field. 3,510,712, 5-5-70, Cl. 313-7.

Rabinowitz, Robert, to American Cyanamid Company. Method of surgically bonding tissue together. 3,527,224, 9-8-70, Cl. 128-334.

Rabl, Helmut; and Neubauer, Ferdinand, to Siemens Aktiengesellschaft. Ferromagnetic switching core of ferrite with rectangular hysteresis loop and process for the production thereof. 3,514,405, 5-26-70, Cl. 252-62.62

Rabold, Charles Norris, to Burlington Industries, Inc. Durable press process. 3,530,510, 9-29-70, Cl. 2-243.

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Rabone, George R.; and Dibble, Charles G., to General Electric Company. Low drag nacelle arrangement for jet propulsion power plants. 3,533,237, 10-13-70, Cl. 60-226.

Rabow, Gerald, to International Telephone and Telegraph Corporation. Radio transponder. 3,513,470, 5-19-70, Cl. 343-6.8

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Racek, Alfred. Adjustable valve assembly for gas-fuelled lighters. 3,542,247, 11-24-70, Cl. 222-3.

Rach, Robert H., to Uniroyal, Inc. High stretch thermal insulating laminates. 3,511,743, 5-12-70, Cl. 161-117.

Rachal, Ezra. Combination of circular saw jointer and vise. 3,526,157, 9-1-70, Cl. 76-48.

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Dadian, Lazarus H.; Gehrung, Horst O.; and Griffiths, Roger O., 3,523,746.

Racine, Roland; and Gauthier, Elie. Heated windshield wiper. 3,523,626, 8-11-70, Cl. 15-250.07

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Raciti, Joseph A., to General Electric Company. Electrical conductor with improved solder characteristics. 3,541,225, 11-17-70, Cl. 174-74.

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Racki, Francis R., to Westinghouse Air Brake Company. Brake cylinder pressure retaining valve. 3,532,117, 10-6-70, Cl. 137-550.

Racki, Francis R.; and Senchur, Frank W., to Westinghouse Electric Corporation. Measuring and dispensing valve with spring biased diaphragm. 3,491,920, 1-27-70, Cl. 222-335.

Racki, Vladimir S., to Prontor-Werk Alfred Gauthier, G.m.b.H. Photographic camera with swinging-through shutter blades. 3,492,931, 2-3-70, Cl. 95-61.

Rackley, Carle E., to Westinghouse Electric Corporation. Air-handling luminaire. 3,498,206, 3-3-70, Cl. 98-40.

Rackman, Michael I. Electroluminescent television system. 3,513,258, 5-19-70, Cl. 178-7.3

Raczka, Zbigniew: *See—*
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Radach, Kurt, to Heinkel, Alfred, & Co. KG. Filter structure for dishwashers. 3,533,841, 10-13-70, Cl. 134-111.

Radawski, James L., to United States of America, Air Force. Visual ammonia detector. 3,528,780, 9-15-70, Cl. 23-253.

Radcliffe, Milton R.; and Tillman, Paul J., to USM Corporation. Polyurethane compositions including aromatic sulfones. 3,542,704, 11-24-70, Cl. 260-2.5

Radcliffe, Remington S.: *See—*
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Radcliffe, Remington S., to Westinghouse Electric Corporation. Clothes brush. 3,518,711, 7-7-70, Cl. 15-23.

Radcliffe, Thomas J.; McElhaney, Daniel M., Jr.; and Havel, Daniel F., to Republic Steel Corporation. Apparatus for producing a collimated beam of radioactive rays. 3,496,361, 2-17-70, Cl. 250-105.

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Radd, Frederick J., to Continental Oil Company. Continuous horizontal casting. 3,509,937, 5-5-70, Cl. 164-87.

Raddatz, Dwight B., to Ball Brothers Company Incorporated. Electrode structure. 3,495,123, 2-10-70, Cl. 313-357.

Raddatz, Dwight B., to Ball Corporation. Electronic monitoring and control apparatus. 3,525,090, 8-18-70, Cl. 340-244.

Raddatz, Dwight B., to Ball Corporation. Electrode connector for electric furnace. 3,530,222, 9-22-70, Cl. 13-16.

Radder, Johannes; Gautier, Pieter A.; and Campen, Jan P., to Shell Oil Company. Production of pivalolactone. 3,536,731, 10-27-70, Cl. 260-343.9

Radder, Johannes: *See—*
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Radebold, Reinhart, to Licentia Patent-Verwaltungs-G.m.b.H. Thermodynamic drive apparatus. 3,525,886, 8-25-70, Cl. 310-11.

Radebold, Reinhart; and Lang, Hermann, to Licentia Patent-Verwaltungs-G.m.b.H. Thermodynamic rocket process using alkali metal fuels in a two phase flow. 3,525,223, 8-25-70, Cl. 60-206.

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Radecki, Tony, to Rain Bird Sprinkler Mfg., Corporation. Part circle water motor driven sprinkler. 3,523,647, 8-11-70, Cl. 239-206.

Radecki, Tony, to Rain Bird Sprinkler Mfg. Corporation. Insect barrier for irrigation nozzles. 3,537,648, 11-3-70, Cl. 239-288.3

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Rademakers, Peter: *See—*
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Raden, Daniel S., to Velsicol Chemical Corporation. Hexahalobicyclo-disocyanatophenyl ethers. 3,509,199, 4-28-70, Cl. 260-453.

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Radford, Arthur Stanley; Blakey, George Thomas Allan; Constable, Geoffrey Ernest Patrick; Cullen, Graeme E.; and Swarbrick, Richard, 50% to Chubb & Son's Lock and Safe Company Limited, and 50% to Smiths Industries Limited. Token controlled access-control equipment and item- dispensing systems including such equipment. 3,516,527, 6-23-70, Cl. 194-4.
Radford, Clemmon H., deceased (by Radford, Voncile H., administratrix) *See—*
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Radford, David L., to McGraw-Edison Company. Unitized dual chamber press head and method of making same. 3,490,158, 1-20-70, Cl. 38-16.
Radford, David L.; Beeley, Micheal G.; and Hanson, Richard M., to McGraw-Edison Company. Garment pressing machine. 3,490,159, 1-20-70, Cl. 38-35.
Radford, David L.; and Mladejovsky, Michael G., to McGraw-Edison Company. Fabric finishing machine and automatic control for operating same. 3,505,743, 4-14-70, Cl. 34-45.
Radford, Herbert Edward, to Bamfords Limited. Intermittent gear means in a knotter. 3,536,347, 10-27-70, Cl. 289-2.
Radford, James E., to United States of America, Navy. Stabilizer fin. 3,543,684, 12-1-70, Cl. 102-10.
Radford, Matthew Frederick, to Marconi Company Limited, The. Scanning aerial systems and associated feeder arrangements therefor. 3,530,485, 9-22-70, Cl. 343-854.
Radgens, Thomas H. Inertia signal for vehicles. 3,513,800, 5-26-70, Cl. 116-37.
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Radik, Arnold. Flexible abrasive apparatus. 3,541,740, 11-24-70, Cl. 51-332.
Radimer, Kenneth J., to FMC Corporation. Process for controlling metal etching operation. 3,503,817, 3-31-70, Cl. 156-19.
Radin, Bernard G., to Ford Motor Company. Electrical generator including components of an automotive vehicle mechanical speedometer. 3,548,663, 12-22-70, Cl. 73-510.
Radin, Bernard G.; and Vanderberg, Lawrence J., to Ford Motor Company. Maximum vehicle speed limiter. 3,520,380, 7-14-70, Cl. 180-106.
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Radler, Richard W.: *See—*
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Radley, Jack Augustus; Fraser, William Stuart; Moss, George Ernest; and Thompson, John Hilton, to Russell Research Limited. Toilet bowl cleaning and disinfecting device. 3,504,384, 4-7-70, Cl. 4-228.
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Radlove, Sol B.; and Ravve, Abraham, to Continental Can Company, Inc. Finishing varnish for decorated metal sheet. 3,532,655, 10-6-70, Cl. 260-28.5
Radlove, Sol B.; and Ravve, Abraham, to Continental Can Company, Inc. Process of applying blended unsaturated acid esterified copolymer surface coatings including crosslinking the blended copolymers with ionizing radiation. 3,546,002, 12-8-70, Cl. 117-93.31
Radomski, Joseph E., to Southworth Machine Company. Dual inverter for counted stacks of sheets. 3,547,279, 12-15-70, Cl. 214-1.
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Radtke, Gurden R. Small slender article dispenser. 3,549,047, 12-22-70, Cl. 221-116.
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Rae, William. Key operated locking device for linear transmission mechanisms. 3,529,452, 9-22-70, Cl. 70-240.
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Raff, Paul; Schuster, Ludwig; Becht, Guenter; and Doerfel, Helmut, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Tetrahydrotricyclopentadienylene diamines. 3,505,402, 4-7-70, Cl. 260-563.
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Raifsnider, Phili J., deceased (by Raifsnider, Dorothy E.; executrix), to Shell Oil Company. In-situ formed Co_2 drive for oil recovery. 3,532,165, 10-6-70, Cl. 166-270.
Raifsnider, Philip J., deceased (by Raifsnider, Dorothy E.; executrix), to Shell Oil Company. Anti-corrosion concentrate containing a polyamine sulfur dioxide reaction product. 3,507,670, 4-21-70, Cl. 106-14.
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Rainero, Giovanni. Mercury column pressure gauges. 3,492,871, 2-3-70, Cl. 73-401.

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Raitch, Alexander J.; and Chaney, Donal W., to Harsco Corporation. Crop and forage vehicle. 3,490,653, 1-20-70, Cl. 222-178.

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Randall, David I.; and Schmidt-Nickels, Wilhelm, to GAF Corporation. Dichloromaleimide-containing anthraquinone dyestuffs. 3,505,351, 4-7-70, Cl. 260-326.

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Randell-Clark, Maurice. Rotary boom fitting. 3,522,786, 8-4-70, Cl. 114-106.

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Randell, Forrest Thomson, to Weir, G. & J., Limited. Water distillation plant. 3,505,173, 4-7-70, Cl. 202-189.

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Randmer, Jacob A.; and Peter, Erich C., to Machlett Laboratories, Incorporated, The. Filament structure having arc suppressing means. 3,513,348, 5-19-70, Cl. 313-278.

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Rastelli, Dominic. Elevator-equipped transport vehicle. 3,539,060, 11-10-70, Cl. 214-75.
Rastelli, Telesfore, to Textron, Inc. Roll bending. 3,528,274, 9-15-70, Cl. 72-242.
Rastorguev, Vladislav Vladimirovich; Ter-Akopov, Artur Mikhailovich; Ivashkov, Nikolai Melitonovich; Begunkov, Alexandr Ivanovich; Belkin, Alesandr Borisovich; and Vexklyarsky, Ilia Nusinovich. Ship with ice-breaking attachment. 3,545,395, 12-8-70, Cl. 114-41.
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Ratcliffe, Arnold. Window mountings. 3,512,210, 5-19-70, Cl. 16-139.
Ratcliffe, Charles B., to Hercules Incorporated. Lustrous pile fabric based on polypropylene. 3,505,097, 4-7-70, Cl. 117-64.
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Rath, Eric. Method for storing and transporting food in a fresh condition. 3,521,459, 7-21-70, Cl. 62-78.
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Rath, Heinrich Bernhard, to Girling Limited. Closed loop type disc brake with locating insert means. 3,536,167, 10-27-70, Cl. 188-73.4
Rath, Hermann; Bredereck, Karl; Rieckert, Horst; Toepffer, Hans; Trosken, Otto; Von Brachel, Hanswilli; and Heid, Christian, to Cassella Farbwerke Mainkur Aktiengesellschaft. Dyed textile materials having improved wet fastness properties and method of producing same. 3,544,363, 12-1-70, Cl. 117-139.5
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Rathkowski, Thomas A., to Abex Corporation. Pulverizer hammer for a hammer mill. 3,549,095, 12-22-70, Cl. 241-197.
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Rathun, William H., to General Electric Company. High voltage electric circuit breaker. 3,538,278, 11-3-70, Cl. 200-144.
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Ratliff, Harvey L., Jr. Stereoscopic television systems with means to control the camera movement from a remote location. 3,504,122, 3-31-70, Cl. 178-6.5
Ratliff, Harvey L., Jr., to Jetru Inc. Wide-angle viewing device for chromatic-free and distortion-free re-creation. 3,511,928, 5-12-70, Cl. 178-6.5
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Ratts, Kenneth Wayne, to Monsanto Company. Sulfonium halides and derivatives thereof. 3,547,994, 12-15-70, Cl. 260-561.

Ratts, Kenneth Wayne; and Yao, Angelina Ngo, to Monsanto Company. Pesticidal composition and method of using substituted aromatic vinyloxythioethers. 3,495,016, 2-10-70, Cl. 424-337.

Ratts, Kenneth Wayne; and Yao, Angelina Ngo, to Monsanto Company. Acetamides. 3,525,767, 8-25-70, Cl. 260-561.

Ratych, Eugene. Building system of preformed units. 3,510,997, 5-12-70, Cl. 52-79.

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Ratzsch, Manfred; Nitzsche, Reinhard; and Ebster, Claus-Dieter, to VEB Leuna-Werke 'Walter Ulbricht'. Method for making ethyl polymerisates or ethyl copolymerisates in tube reactors. 3,546,189, 12-8-70, Cl. 260-88.1

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Rauch, Emil B.; and Welsh, John A., to GAF Corporation. Unsymmetrical carbocyanines. 3,514,450, 5-26-70, Cl. 260-240.6

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Rauhut, Herbert; and Dotsch, Hans-Dieter, to Keuffel & Esser Company, mesne. Two-component diazotype material. 3,493,377, 2-3-70, Cl. 96-91.

Rauhut, Herbert; and Moraw, Roland, to Keuffel & Esser Company, mesne. Two-component diazotype material. 3,498,791, 3-3-70, Cl. 96-91.

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Rausch, Hans; Heitmann, Gunter; Meyer, Kurt; and Thumm, Wilhelm, to Metallgesellschaft Aktiengesellschaft. Sponge iron production. 3,497,348, 2-24-70, Cl. 75-33.

Rausch, John J.; and Van Thyne, Ray J. Wear resistant materials. 3,549,427, 12-22-70, Cl. 148-31.5

Rausch, John J.; and Van Thyne, Ray J. Wear and abrasion resistant materials. 3,549,429, 12-22-70, Cl. 148-32.

Rausch, Karl W., Jr.; and Sayigh, Adnan A. R., to Upjohn Company, The. Polyurethane fibers derived from 1,4- diethylbenzene-β,β'-diisocyanate. 3,542,736, 11-24-70, Cl. 260-75.

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Rausch, Wilfried, to Brown, Boveri/Krupp Reaktorbau G.m.b.H. Method of controlling nuclear reactors. 3,519,536, 7-7-70, Cl. 176-36.

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Rauscher, Joseph C. Automatic shearing device. 3,545,324, 12-8-70, Cl. 83-363.

Rauser, Charles K., Sr.; and Krupnik, Stephen J., Jr. Tool storage fixture. 3,550,976, 12-29-70, Cl. 312-28.

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Rausing, Hans Anders; Rausing, Gad Anders; Lindh, Torsten Lennartson; and Ekstrom, Karl-Erik, to AB Tetra Pak. Method applicable to a laminate of a carrier material and a coating material for producing a web having a strip of the coating material projecting beyond the carrier material by preventing adhesion on the carrier material. 3,531,350, 9-29-70, Cl. 156-244.

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Rauth, Robert W.; and Lee, Yee, to Bin-Dicator Company, The. Liquid level control and indicating apparatus. 3,540,027, 11-10-70, Cl. 340-244.

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Ravenel, Raymond A., to Societe Anonyme Andre Citroen. Rack-and-pinion steering systems. 3,505,895, 4-14-70, Cl. 74-422.

Ravenel, Raymond A., to Societe Anonyme Andre Citroen. Valve gear disposal. 3,520,286, 7-14-70, Cl. 123-59.

Ravenel, Raymond A., to Societe Anonyme Andre Citroen. Vehicle wheel suspension. 3,520,554, 7-14-70, Cl. 280-124.

Ravenel, Raymond A., to Societe Anonyme Andre Citroen. Hydrostatic retarders for road vehicles. 3,521,729, 7-28-70, Cl. 188-91.

Ravenel, Raymond A., to Societe Anonyme Andre Citroen. Pumps. 3,523,002, 8-4-70, Cl. 417-534.

Ravenel, Raymond A., to Societe Anonyme Andre Citroen. Automatic gear boxes for automobiles. 3,528,324, 9-15-70, Cl. 74-720.

Ravenel, Raymond A., to Societe Anonyme Andre Citroen. Combined air-filter and induction silencer. 3,530,648, 9-29-70, Cl. 55-276.

Ravenel, Raymond A., to Societe Anonyme Andre Citroen. Camshaft valve gear for engine cylinder head. 3,531,234, 9-29-70, Cl. 123-59.

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Ravenel, Raymond A., to Societe Anonyme Andre Citroen. Steering column having an impact absorbing contractible portion. 3,537,329, 11-3-70, Cl. 74-492.

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Ravenel, Raymond A., to Societe Anonyme Citroen. Fitting of engine units of automotive vehicle. 3,547,214, 12-15-70, Cl. 180-42.

Ravenhall, Arthur Sam, to Dunlop Company Limited, The. Tyre construction. 3,534,798, 10-20-70, Cl. 152-209.

Ravenscroft, Ivor Albert, to Postmaster General, Her Majesty's. Multiple reflector antenna with offset feed. 3,530,476, 9-22-70, Cl. 343-761.

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Raver, Louis J.; and Nowakowski, Robert J., to General Motors Corporation. Transistor voltage and current regulating system for an alternating current generator. 3,544,881, 12-1-70, Cl. 322-25.

Raver, Louis J.; and Stenklyft, Gerald H., to General Motors Corporation. Transistor voltage regulating system for generators having main and reverse field windings. 3,510,752, 5-5-70, Cl. 322-28.

Ravera, Alfredo. Endothermic rotary engine with shiftable blades. 3,539,280, 11-10-70, Cl. 418-91.

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Ravve, Abraham, to Continental Can Company, Inc. Process for preparing polymerized aminoplast surface coatings using ionizing radiation. 3,535,148, 10-20-70, Cl. 117-93.31

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Radlove, Sol B.; and Ravve, Abraham,3,546,002.

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Rawcliffe, John, to United Kingdom of Great Britain and Northern Ireland, Minister of Technology in Her Britannic Majesty's, Government of the. Calibration of instruments. 3,511,077, 5-12-70, Cl. 73-1.

Rawdon, Albert H., to Riley Stoker Corporation. Steam generating unit. 3,516,391, 6-23-70, Cl. 122-491.

Rawles, William T. Process of casting with mold stool protection plate. 3,508,600, 4-28-70, Cl. 164-121.

Rawlings, Charles Guy. Tuning forks. 3,494,122, 2-10-70, Cl. 58-23.

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Reece, Jack E.; and Edmonds, James T., Jr., to Phillips Petroleum Company. Production of epithioalkanes. 3,527,765, 9-8-70, Cl. 260-327.

Reece, Jack E.; and Kubicek, Donald H., to Phillips Petroleum Company. 1,5,10-Decanetrithiol. 3,522,313, 7-28-70, Cl. 260-609.

Reece, Jack E.: *See—*
Jones, Faber B.; and Reece, Jack E.,3,505,166.

Reece, Marvin P.: *See—*
Rosan, Jose, Sr.; and Reece, Marvin P.,3,540,101.
Rosan, Jose, Sr.; Weber, Robert D.; and Reece, Marvin P.,3,508,592.

Reece, William O., to Swift & Company. Method of handling animals. 3,519,433, 7-7-70, Cl. 99-107.

Reed, Alun John; and Bowen, Gwynne, to Metalastik Limited. Flexible transmission couplings. 3,512,768, 5-19-70, Cl. 267-1.

Reed, Artrude L., Jr.: *See—*
Flavin, Michael A.; Reed, Artrude L., Jr.; and Stone, Eliot,3,507,682.

Reed, Charles E.: *See—*
Tetrick, Harlan M.; and Reed, Charles E.,3,507,322.

Reed, Charles G.: *See—*
Sleater, Roland G.; and Reed, Charles G.,3,517,217.

Reed, Charles M. D.; and Velander, Harry, to Taylor-Reed Corporation, The. Methods for making instant fudge candy. 3,512,995, 5-19-70, Cl. 99-134.

Reed Corrugated Cases Limited: *See—*
Ashton, Thomas Richard; Cottle, Victor Claude Herbert; Jackson, David; Smith, Michael John; and Weatherup, William Davidson, 3,491,503.

Reed, David D.: *See—*
Sweeney, William M.; Reed, David D.; and Schallenberg, Elmer E.,3,522,180.

Reed, David L.: *See—*
Thron, John E.; Blume, Michael H.; Reed, David L.; Stein, Howard; and Wiley, John O.,3,522,589.

Reed, David M. Work vehicle. 3,545,634, 12-8-70, Cl. 214-510.

Reed, Edward R. Hand operated target projecting device. 3,537,438, 11-3-70, Cl. 124-5.

Reed, Edward W., Jr., to Minnesota Mining and Manufacturing Company. Electron beam recording system and apparatus. 3,497,762, 2-24-70, Cl. 315-21.

Reed Electromech Corporation: *See—*
Manzer, Marvin R.; Schmitt, Donald E.; and Smith, Samuel O., 3,520,444.
Schmitt, Donald E.; Smith, Samuel O.; and Manzer, Marvin R., 3,527,330.

Reed, Emil C.,: *See—*
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Reed, Frederick P.: *See—*
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Reed, George A.: *See—*
Warson, Henry; and Reed, George A.,3,503,916.

Reed, George J., to Franklin Manufacturing Company, mesne. Clutch and brake combination for an automatic clothes washer. 3,490,569, 1-20-70, Cl. 192-18.

Reed, Irving S., to Technology Service Corporation. Error tolerant sequential circuits. 3,529,141, 9-15-70, Cl. 235-153.

Reed, Jack Owen, to Phytogen Products, Inc. Animal husbandry. 3,499,445, 3-10-70, Cl. 128-260.

Reed, James S.: *See—*
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Reed, John A., to Shell Oil Company. DC memory array. 3,550,097, 12-22-70, Cl. 340-173.

Reed, John C. Variable head rheometer for measuring non- Newtonian fluids. 3,520,179, 7-14-70, Cl. 73-55.

Reed, John M.; and Reynard, John M., to Polaroid Corporation. Simplified photographic coincidence rangefinder. 3,543,665, 12-1-70, Cl. 95-44.

Reed, Jonathan: *See—*
Halstead, Clifford; and Reed, Jonathan,3,549,921.

Reed, Karl F., II, to Anderson Electric Corporation. Strain insulator. 3,549,790, 12-22-70, Cl. 174-177.

Reed, Kenneth Gordon: *See—*
MacLeod, John Kenneth; and Reed, Kenneth Gordon,3,523,749.

Reed, Kenneth James; and Lythgoe, Alan Lennox, to Letraset Limited. Transfer materials. 3,519,456, 7-7-70, Cl. 117-3.1

Reed, Kenneth James; Mc Gilvray, Donald Ian; and Fletcher, Jack, to McCorquodale Colour Display Limited. Application of liquid colours to paper card or other smooth surfaces. 3,511,213, 5-12-70, Cl. 118-401.

Reed, Lola L. Portable sectional floor. 3,512,324, 5-19-70, Cl. 52-506.

Reed, Mark. Chinchilla collar. 3,540,417, 11-17-70, Cl. 119-106.

Reed, Maude F. Convertible geometric structure. 3,532,225, 10-6-70, Cl. 211-181.

Reed, Maynard W., to American Chain & Cable Company, Inc., mesne. Safety bumper for self-propelled vehicle. 3,496,317, 2-17-70, Cl. 200-52.

Reed, Norman D.: *See—*
Ligon, Elmer R.; and Reed, Norman D.,3,500,680.

Reed, Norman Leonard: *See—*
Startin, Kenneth John; and Reed, Norman Leonard,3,500,288.

Reed, Richard H.: *See—*
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Reed, Robert D.; and Zink, John S., to Zink, John, Company. Flare stack burner. 3,512,911, 5-19-70, Cl. 431-202.

Reed, Robert D.: *See—*
Goodnight, Hershel; Zink, John Smith; and Reed, Robert D.,3,493,181.
Zink, John Smith; and Reed, Robert D.,3,539,285.

Reed, Robert E.: *See—*
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Reed, Robert E.; and Fitch, Ernest C., Jr., to Oklahoma State University. Compressed air cleaning system for turbine powered dental equipment. 3,494,110, 2-10-70, Cl. 55-316.
Fitch, Ernest C., Jr.; Reed, Robert E.; and Comer, Alva G.,3,501,014.
Maciula, L. Andrew; and Reed, Robert E.,3,529,724.

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Reed Rolled Thread Die Co.: *See—*
Orlomoski, Roger W., 3,517,717.
Orlomoski, Roger W., 3,538,739.
Orlomoski, Roger W., 3,538,740.

Reed, Vernon; Woods, Richard; and Kadel, Richard C., to Eckrich, Peter, & Sons, Inc. Display device. 3,490,600, 1-20-70, Cl. 211-59.

Reed, Wallace D.: *See—*
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Reed, Warren C. Automatic livestock feeding machine. 3,543,727, 12-1-70, Cl. 119-51.11

Reed, Wendell E., to International Harvester Company. Gas turbine engine and control system. 3,529,419, 9-22-70, Cl. 60-39.16

Reed, William C.; and Bilbrough, Jack, to Rank Organisation Limited, The. Apparatus for and a method of high frequency electromagnetic moisture measurement in highly viscous pastes and similar materials. 3,500,182, 3-10-70, Cl. 324-58.5

Reed, William Charles; and Bilbrough, Jack, to Rank Organisation Limited, The, mesne. Measurement of moisture in sheet materials by use of a slotted waveguide. 3,508,145, 4-21-70, Cl. 324-58.5

Reed, Wilmer H., III, to United States of America, National Aeronautics and Space Administration. Viscous-pendulum-damper. 3,491,857, 1-27-70, Cl. 188-1.

Reeder, Earl; Stempel, Arthur; and Sternbach, Leo Henryk, to Hoffmann-La Roche Inc. Process for preparing 5-aryl benzodiazepines and intermediates. 3,513,158, 5-19-70, Cl. 260-239.3

Reeder, Earl; and Sternbach, Leo Henryk, to Hoffmann-La Roche Inc. Lower alkyl, phenyl or pyridyl-2-thiocyanophenyl ketones. 3,503,985, 3-31-70, Cl. 260-294.8

Reeder, Earl; and Sternbach, Leo Henryk, to Hoffmann-La Roche Inc. Phenyl-(or lower alkyl-or-pyridyl)-2- mercaptophenyl ketones. 3,523,974, 8-11-70, Cl. 260-591.

Reeder, Earl; and Sternbach, Leo Henryk, to Hoffmann-La Roche Inc. Process for producing certain intermediates for 1,4-benzodiazepines. 3,530,139, 9-22-70, Cl. 260-294.8

Reeds, John W., Jr., to Minnesota Mining and Manufacturing Company. Evacuatable chamber seal. 3,504,371, 3-31-70, Cl. 346-110.

Reedy, Dom E.: *See—*
Hardison, Leslie C.; Pegg, Edward H. R.; Reedy, Dom E.; and Barr, James M.,3,546,851.

Reedy, James D.: *See—*
Yang, Kang; Reedy, James D.; and Hartshorn, Robert L.,3,492,207.

Reedy, Ora Lee; Twilley, Ian C.; and Rainer, Norman B., to Allied Chemical Corporation. Spinnable compositions comprising a fiber forming polyamide, a fiber forming polyester and a spinning aid. 3,516,956, 6-23-70, Cl. 260-22.

Reedy, Richard C.; and Baker, Donald V., III, to Cordell Engineering, Incorporated. Photographic processing apparatus. 3,545,364, 12-8-70, Cl. 95-89.

Reef, Jan. Gear comparator. 3,508,337, 4-28-70, Cl. 33-179.5

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Reeh, Olaf. Inert gas shielded welding torch. 3,529,126, 9-15-70, Cl. 219-130.

Reeh, Olaf. Welding torch. 3,548,143, 12-15-70, Cl. 219-75.

Reeks, Frank, to C. B. Associates Limited. Inertia-operated valve. 3,521,652, 7-28-70, Cl. 137-38.

Reel, Richard F. Safety ground device. 3,518,607, 6-30-70, Cl. 339-12.

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Reeme, Mahan L., Jr.: *See—*
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Reerink, Engbert Harmen; Westerhof, Pieter; and Scholer, Hendrik Frederik Louis, to U.S. Philips Corporation, mesne. 16,17-Acetal derivatives of the retro pregnane series. 3,523,943, 8-11-70, Cl. 260-239.55

Reerink, Engbert Harmen; Westerhof, Pieter; and Scholer, Hendrik Frederik Louis, to U.S. Philips Corporation, mesne. 4-Alkyl-6-dehydro-testosterone and intermediates in the production thereof. 3,523,958, 8-11-70, Cl. 260-397.4

Rees Burner & Blow Pipe Co.: *See—*
Cowan, William C., 3,524,418.

Rees, Charles E., Jr.: *See—*
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Rees, Donald W., to United States of America, Army. Panoramic television viewing system. 3,505,465, 4-7-70, Cl. 178-6.

Rees, Donald W.; Hilliard, Robert C.; and Hoogland, Jan, to United States of America, Army, mesne. Wide angle television projection device. 3,539,721, 11-10-70, Cl. 178-7.89

Rees, Frederick Henry, to International Standard Electric Corporation. Delta modulation system using a constant code length less than the available code length with automatic range shift within the available code length. 3,492,431, 1-27-70, Cl. 179-15.

Rees, Frederick Henry, to International Standard Electric Corporation. Checker for 'n' out of 'm' signals. 3,533,066, 10-6-70, Cl. 340-146.1

Rees, Howard; and Wright, Brian Linwood, to British Petroleum Company Limited, The. Hydrocatalytic treatment wherein temperatures are modified when changing feedstocks. 3,532,619, 10-6-70, Cl. 208-27.

Rees, Huw David: *See—*
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Rees, James D., to Xerox Corporation. Reflection type flash fuser. 3,529,129, 9-15-70, Cl. 219-216.

Rees, Lynn T., to Motorola, Inc. Voltage converter and regulator. 3,541,420, 11-17-70, Cl. 320-1.

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Rees, Patrick, to Rosemount Engineering Company Limited. Slotted airfoil sensor housing. 3,512,414, 5-19-70, Cl. 73-349.

Rees, Patrick, to Rosemount Engineering Company Limited. Aerodynamic components mounted externally on an aircraft. 3,535,930, 10-27-70, Cl. 73-212.

Rees, Richard W.: *See—*
Bright, Royal E.; Rees, Richard W.; and Smith, Herchel,3,513,160.

Rees, Richard W.; and Smith, Herchel, to American Home Products Corporation. 23,24-Secoalkaloids. 3,509,155, 4-28-70, Cl. 260-287.

Rees, Richard W.; and Smith, Herchel, to American Home Products Corporation. 23,24-Secostrychnidine derivatives. 3,509,157, 4-28-70, Cl. 260-287.

Rees, Richard W.; and Smith, Herchel, to American Home Products Corporation. Method of tranquilizing or anti-depressant treatment with alkaloid derivatives. 3,531,570, 9-29-70, Cl. 424-262.

Rees, Spencer C., to Singer Company, The. Reciprocating power saws with reversible shoe and special blade clamp. 3,496,972, 2-24-70, Cl. 143-68.

Rees, Theodore J.: *See—*
Pendzimas, Donald J.; and Rees, Theodore J.,3,543,671.

Rees, Vernon C.; Griem, Paul D., Jr.; Maddux, John F.; and Hudgins, Robert R., to Owens-Corning Fiberglas. Control apparatus. 3,526,757, 9-1-70, Cl. 340-146.1

Rees, William W.: *See—*
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Rees, William W.; and Russell, William H.; to Eastman Kodak Company. Photographic materials containing polymers. 3,536,491, 10-27-70, Cl. 96-87.

Reese, Cecil E.: *See—*
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Reese, Eckart: *See—*
Radlmann, Eduard; Reese, Eckart; and Nischk, Gunther,3,503,931.

Reese, Glenn A., to Magnavox Company, The. Facsimile transceiver construction. 3,499,111, 3-3-70, Cl. 178-7.6

Reese, Glenn A.; and Crane, Paul J., to Magnavox Company, The. Facsimile synchronizing system. 3,505,472, 4-7-70, Cl. 178-69.5

Reese, Glenn A.; Goodrich, Robert R.; and Krone, Ben W., to Magnavox Company, The. Light balancing shade for facsimile scanner. 3,548,096, 12-15-70, Cl. 178-7.1

Reese, Glenn A.: *See—*
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Reese, Gunter: *See—*
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Reese, James D. Gas torch. 3,531,228, 9-29-70, Cl. 431-202.

Reese, Johannes; and Kraft, Kurt A., to Chemische Werke Albert. Phosphorus containing reaction products. 3,526,613, 9-1-70, Cl. 260-78.5

Reese, Johannes: *See—*
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Reese, John Sanders; and Downs, Neville L., to Electronic Communications, Inc. FM digital circuit for analog power control. 3,501,685, 3-17-70, Cl. 321-2.

Reese, Leolf M.: *See—*
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Reese, Richard D. Card holder and record book. 3,537,728, 11-3-70, Cl. 281-31.

Reese, William E. Collapsible seating enclosure. 3,491,781, 1-27-70, Cl. 135-5.

Reeser, Esral M.; and Anderson, Ronald L., to Case, J. I., Company. Logging fork with saw attachment. 3,517,711, 6-30-70, Cl. 143-32.

Reesman, Stanley Hamilton; and Cole, James Harold. Process for producing shaped dough pieces and apparatus. 3,551,165, 12-29-70, Cl. 99-81.

Reesman, Stanley H., to General Foods Corporation. Process for producing puffed dough pieces. 3,506,454, 4-14-70, Cl. 99-81.

Reeve, David Hulsizer, to Effluent Controls, Inc. Gas scrubber method. 3,488,924, 1-13-70, Cl. 55-85.

Reeve, Lewis Stone: *See—*
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Reeve, Richard J.; and Noah, George I. Positive displacement pump. 3,510,232, 5-5-70, Cl. 417-415.

Reeves, Alec Harley; and McNeilly, Joseph Hood, to International Standard Electric Corporation. Decoder. 3,526,889, 9-1-70, Cl. 340-347.

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Reeves, Howard F., Jr.; Rose, John L., Jr.; and Quillen, Caldwell S., to Velsicol Chemical Corporation. Resinous compositions. 3,495,998, 2-17-70, Cl. 106-176.

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Reeves, Robert Bruce; and Gebhardt, Joseph J., to General Electric Company. Low temperature method for producing amorphous boron-carbon deposits. 3,537,877, 11-3-70, Cl. 117-46.

Reeves, Robert E.; and Ridgeway, John D., Jr., to Inland Container Corporation. Easy-opening container. 3,529,764, 9-22-70, Cl. 229-51.

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Reeves, Stanley H. Educational game device. 3,526,975, 9-8-70, Cl. 35-37.

Reeves, Victor A., to Premi-Hair, Inc. Means and method for making hair pieces. 3,525,346, 8-25-70, Cl. 132-5.

Reeves, Wilson A.; Hamalainen, Carl; Saint, Mard, Hubert H.; and Cooper, Albert S., Jr., to United States of America, Agriculture. Abrasion-resistant durably-pressed cellulosic textiles. 3,526,474, 9-1-70, Cl. 8-116.3

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Refer, Duane K.; and Johnson, Carl W., said Johnson assor. to said Refer. Conveyor belt scale. 3,513,921, 5-26-70, Cl. 177-16.

Reffle, Anton M., to Eaton Yale & Towne, Inc. Vehicle drive and steer mechanism. 3,534,825, 10-20-70, Cl. 180-42.

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Regal, John A. Shielded safety gas main assembly. 3,515,173, 6-2-70, Cl. 138-104.

Regan, A. Michael, to Regan Forge & Engineering Co. Circulating casing hanger and running tool apparatus. 3,489,215, 1-13-70, Cl. 166-87.

Regan, Ann B.; and Dawson, Aleen B. Interlocking swimming pool cover. 3,495,279, 2-17-70, Cl. 4-172.14

Regan, Bernard M., to Baxter Laboratories, Inc. 1,1-Dichloro-2,3,3-trifluoropropene and method of preparation. 3,499,048, 3-3-70, Cl. 260-653.3

Regan, Bernard M., to Baxter Laboratories, Inc. Method of inducing anesthesia with 2-halo-1,1,1,3,3- pentafluoropropanes. 3,499,089, 3-3-70, Cl. 424-350.

Regan, Bernard M., to Baxter Laboratories, Inc. Composition and method for anesthetizing using 3-chloro-1,1,2,2,3-pentafluoropropane. 3,506,768, 4-14-70, Cl. 424-350.

Regan, Bernard M., to Baxter Laboratories, Inc. 2-Bromo-2-chloro-1,1,3,3-tetrafluoropropane as an inhalation anesthetic. 3,525,794, 8-25-70, Cl. 424-350.

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Regan, Gerald D. Animal and bird feeder. 3,537,429, 11-3-70, Cl. 119-51.

Regan, John F.; and Arzig, Edward C., to Duncan Industries, Inc., mesne. Lock. 3,509,749, 5-5-70, Cl. 70-364.

Regan, Malachy J. Attachment for increasing the effectiveness of an electric shaver. 3,517,442, 6-30-70, Cl. 30-41.

Regan, Paul E., Jr., to Ethicon, Inc. Method of packaging sutures. 3,490,192, 1-20-70, Cl. 53-21.

Regan, Richard E.: *See—*
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Regar, Karl Nicolaus. Rotary volumetric mechanism/usable as pumps, compressors, fluid motors, internal combustion engines, and the like. 3,489,126, 1-13-70, Cl. 123-16.

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Regel, Erik K.; and Botts, Marion F., to Chemagro Corporation. Use of allylphosphonodithioates as nematocides. 3,513,233, 5-19-70, Cl. 424-219.

Regel, Erik K.; and Botts, Marion F., to Chemagro Corporation. S,S-Dialkyl-2(or 1) alkyl- thio vinyl phosphonates. 3,529,041, 9-15-70, Cl. 260-948.

Regel, Erik K.; and Botts, Marion F., to Chemagro Corporation. Alkoxy vinyl phosphono dithioates as nematocides. 3,549,750, 12-22-70, Cl. 424-217.

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Regensburger, Paul J., to Xerox Corporation. Light insensitive xerographic plate and method for making same. 3,501,343, 3-17-70, Cl. 117-215.

Reggiani, Armando, to Reggiani S.p.A. Apparatus for the continuous liquid treatment of fabrics. 3,505,835, 4-14-70, Cl. 68-22.

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Regnier, Albert; and Silerme, Fernand, to International Standard Electric Corporation. Magnetic memory switch and array. 3,524,167, 8-11-70, Cl. 340-166.

Regnier, Albert; and Silerme, Fernand, to International Standard Electric Corporation. Magnetic memory switch. 3,525,022, 8-18-0, Cl. 317-155.5

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Rego, Jose Dominguez. Magnetoplasmadynamic jet engine. 3,527,055, 9-8-70, Cl. 60-224.

Rego, Richard Donald: *See—*
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Rehhausser, Frederick V.: *See—*
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Rehm, Walter: *See—*
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Rehwald, Edmund A., to Barber-Colman Company. Tension regulator for stretch core thread. 3,489,368, 1-13-70, Cl. 242-147.

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Reiber, Richard W., to United States Testing Company, Inc. Boundary detection apparatus. 3,551,052, 12-29-70, Cl. 356-51.

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Reich, Bernard, to United States of America, Army. Rectifier and transient suppressor. 3,551,783, 12-29-70, Cl. 321-14.

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Reich, Gilbert H. Vapor-type humidifier-deodorizer for warm air heating systems. 3,510,252, 5-5-70, Cl. 21-74.

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Reich, Robert Walter. Transistorized amplifier for electronic clockwork motor. 3,524,117, 8-11-70, Cl. 318-128.

Reich, Robert Walter. Electronic oscillating motor timepiece drive. 3,524,118, 8-11-70, Cl. 318-128.

Reich, Robert Walter. Electrical self-starting time keeping apparatus. 3,524,119, 8-11-70, Cl. 318-128.

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Reick, Kenneth R.; and Tiger, Emil, to Sunbeam Business Equipment Co. Electrophotostatic copying machine. 3,490,842, 1-20-70, Cl. 355-10.

Reicke, Hans Jurgen; Schnabel, Herbert; and Weinhauer, Dieter, to Vereinigte Flugtechnische Werke Gesellschaft mit beschrankter Haftung fruher 'Weser' Flugzeugbau/ Focke-Wulf/Heinkel-Flugzeugbau. Device for displacing the front portion of an air inlet of jet drives. 3,537,464, 11-3-70, Cl. 137-15.1

Reid, Albert R., to Hercules Incorporated. Process for preparing cellulose sulfate salts. 3,528,963, 9-15-70, Cl. 260-215.

Reid, Allen F.; and Halff, Albert H. Process utilizing ion exchange for decreasing the concentration of a solute. 3,514,397, 5-26-70, Cl. 210-28.

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Reid, David B.; and Jarrett, George W., to FMC Corporation. Clamping mechanism for rotary car dumper. 3,528,571, 9-15-70, Cl. 214-55.

Reid, Donald E. Bolt guard. 3,524,669, 8-18-70, Cl. 292-346.

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Reid, Jack M.: *See—*
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Reid, James David, to English Electric Computers Limited. Data transmitter utilizing a parallel pair of intermittently energized transformers without saturation. 3,541,239, 11-17-70, Cl. 178-68.

Reid, James S., to Standard Products Company, The. Waste disposal system. 3,504,797, 4-7-70, Cl. 210-152.

Reid, James S.; and Green, Harry W., to Standard Products Company, The. Waste disposal system. 3,509,999, 5-5-70, Cl. 210-149.

Reid, John E., Sr. Rhythm teaching machine. 3,541,916, 11-24-70, Cl. 84-484.

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Reid, Luther J., Jr., to Mobil Oil Corporation. Method for preparing crystalline aluminosilicates of improved stability. 3,488,146, 1-6-70, Cl. 23-112.

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Reid, Orland B.; and Feuling, Bert G., to Singer Company, The. Hemming and button sewing modules. 3,543,706, 12-1-70, Cl. 112-150.

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Reid, Richard K., to Phillips Petroleum Company. Polymer extrusion sampling system. 3,526,926, 9-8-70, Cl. 18-2.

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Reid, Walter Andrew. Camping floor panel. 3,488,900, 1-13-70, Cl. 52-79.

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Reifel, Harry C., to Unitrode Corporation. Subassembly package. 3,549,782, 12-22-70, Cl. 174-52.

Reifel, Harry; and Di Benedetto, Vito J., to Stevens-Arnold Inc. Shielded transformer. 3,517,361, 6-23-70, Cl. 336-84.

Reifenberg, Gerald H.; and Considine, William J., to M & T Chemicals Inc. Process for preparing organotin mercaptides. 3,507,893, 4-21-70, Cl. 260-429.7

Reifenhauser, Friedrich, to Reifenhauser K.G. Apparatus for forming valve pockets in plastic film. 3,497,916, 3-3-70, Cl. 18-19.

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Reiffin, Martin G. Motional feedback amplifier systems. 3,530,244, 9-22-70, Cl. 179-1.

Reifman, Mark Petrovich; Gendelman, Lev Simkhovich; and Lugovkin, Vladimir Timofeevich. Step-by-step electric motor with damper for secondary electric clock. 3,496,393, 2-17-70, Cl. 310-49.

Reifschneider, Walter, to Dow Chemical Company, The. Thiazolium metal salt complexes. 3,511,850, 5-12-70, Cl. 260-299.

Reighard, Alan B.; Rosen, Samuel R.; and Baker, Robert G., to Nordson Corporation. Gun for dispensing thermoplastic materials. 3,543,968, 12-1-70, Cl. 222-146.

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Reilly, Frederick William, to Beautiline Limited. Corner construction and method of connecting rectangular frame members together. 3,532,369, 10-6-70, Cl. 287-54.

Reilly, James J., Jr., to United States of America, Atomic Energy Commission. Adiabatic calorimeter. 3,513,699, 5-26-70, Cl. 73-190.

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Reilly, Mason J.; Gonsalves, Joseph E., Jr.; and Millidge, Ralph J., to Boeing Company, The. Crashload attenuating aircraft crewseat. 3,532,379, 10-6-70, Cl. 297-216.

Reilly, Thomas A.; and Bemer, William, to Union Carbide Corporation. Primary dry cell. 3,506,495, 4-14-70, Cl. 136-107.

Reilly, Victor J., to Du Pont de Nemours, E. I., and Company. Fused salt electrolysis cell having anode with tapered well therein. 3,544,444, 12-1-70, Cl. 204-243.

Reilly, William A., to Sawyer-Tower Products, Inc. Floating oil barrier. 3,548,599, 12-22-70, Cl. 61-1.

Reimann, George P., Jr., to Polaroid Corporation. Manufacturing photographic film packets. 3,537,630, 11-3-70, Cl. 226-115.

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Reimann, Hubertus, to VEB Pentacon Dresden Kamera- und Kinowerke. Photographic camera with exposure control circuit. 3,543,658, 12-1-70, Cl. 95-10.

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Reimann, Otto. Apparatus for walking ground-working machinery. 3,527,313, 9-8-70, Cl. 180-8.

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Reimer, George M., to Union Special Machine Company. Flat bed sewing machine. 3,499,407, 3-10-70, Cl. 112-218.

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Reimers, James L., to FMC Corporation. Heat treatment apparatus. 3,510,320, 5-5-70, Cl. 99-365.

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Reimers, James L., to FMC Corporation. Method and apparatus for cooking and cooling foodstuff within large containers. 3,544,341, 12-1-70, Cl. 99-214.

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Reuteler, Johann F.; and Anderson, Robert F., to Pratt & Whitney Inc. Digitally responsive servo systems including a photoelectric quantizer and failsafe circuitry therefor. 3,536,979, 10-27-70, Cl. 318-18.
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Ukmar, Boris; and Ricciardi, Giuseppe,3,541,232.
Ricciardi, Maria Luisa; and Sanfilippo, Aurora, to Societa Farmaceutici Italia. Piperazine di-(N-acetyl-glycinate). 3,522,258, 7-28-70, Cl. 260-268.
Ricciardi, Ronald J. Metering apparatus. 3,494,507, 2-10-70, Cl. 222-36.
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Rice, Archie H.; Slechta, Alfred F.; and Hsiung, Andrew K., to Neptune Microfloc, Incorporated. Clarification apparatus for aerated lagoon. 3,511,380, 5-12-70, Cl. 210-202.
Rice, Billy D., to Petro-Tex Chemical Corporation. Method for separating a polymer from a solvent. 3,549,732, 12-22-70, Cl. 264-8.
Rice, Charles K. Method for producing filamentary boron. 3,549,424, 12-22-70, Cl. 148-6.3
Rice, Charles M.: *See—*
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Rice, Christopher R., to Polaroid Corporation. Severing apparatus. 3,543,622, 12-1-70, Cl. 83-117.
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Rice, David E., to Minnesota Mining and Manufacturing Company. Perfluoroalkylene oxide polymers. 3,505,411, 4-7-70, Cl. 260-615.
Rice, Edward J., to TRW Semiconductors, Inc. Method of etching patterns into solid state devices. 3,542,551, 11-24-70, Cl. 96-36.2
Rice, Edwin E.; and Rice, Warren A., to Chemotronics, Incorporated. Shuttle type pressure vessel. 3,547,589, 12-15-70, Cl. 23-252.
Rice, Frank A.; and Lester, David R., to Detroit Radiant Products Company. Gas infra-red burner construction. 3,547,097, 12-15-70, Cl. 126-4.
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Rice, Fred J., Jr., to Quaker Oats Company, The. Process for recovering acetic acid. 3,488,386, 1-6-70, Cl. 260-541.
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Rice, Harold W., to Robertshaw Controls Company. Ignition means and method for a cooking apparatus and the like. 3,490,435, 1-20-70, Cl. 126-39.
Rice, Herbert C. Inertia-offset vehicle ride damper. 3,527,453, 9-8-70, Cl. 267-140.
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Rice, Lindsey M., to Texas Instruments, Incorporated. Electro-thermal sequencing apparatus. 3,496,377, 2-17-70, Cl. 307-41.
Rice, Lynwood C.; and Spare, Gordon T., to United States Steel Corporation. Method of making high-strength cold-drawn wire. 3,502,513, 3-24-70, Cl. 148-12.1
Rice, Macon D. I-Beam sawhorse or support structure. 3,530,955, 9-29-70, Cl. 182-181.
Rice, Millard Lee; Burton, Joe M.; and Shaver, Robert G., to Susquehanna Corporation, The. Propellent grains. 3,509,822, 5-5-70, Cl. 102-102.
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Rice, Prentice N. Device for practicing golf putting. 3,507,499, 4-21-70, Cl. 273-178.
Rice, Richard E.; and Lawrence, Willis Thompson, to Hooker Chemical Corporation, mesne. Corrosion control in sealed heat storage modules. 3,501,261, 3-17-70, Cl. 21-2.5
Rice, Richard E.; and Webb, George Warren, to Comstock & Wescott, Inc. Powder metallurgy press apparatus. 3,521,326, 7-21-70, Cl. 18-16.5
Rice, Rip G.; Murch, Robert M.; and de Vore, Dorothy C., to Grace, W. R., & Co. Linear phosphonitrilic chloride derivatives containing terminal organic groups. 3,545,942, 12-8-70, Cl. 23-357.
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Rich, John W.; and Walker, Grant W. Combination liquid and metal shock absorbing buffers. 3,512,822, 5-19-70, Cl. 293-1.
Rich, Joseph A., to General Electric Company. Vacuum arc devices with doubly reentrant coaxial arc-electrode structure. 3,509,404, 4-28-70, Cl. 313-148.
Rich, Joseph A., to General Electric Company. Coaxial vacuum gap devices including doubly reentrant electrode assemblies. 3,509,405, 4-28-70, Cl. 313-155.
Rich, Joseph A., to General Electric Company. Vacuum arc devices utilizing symmetrical coaxial electrode structures. 3,509,406, 4-28-70, Cl. 313-155.
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Rich, Theodore A., to General Electric Company. Apparatus for selective separation of ions of different mobilities in a gas stream. 3,522,425, 8-4-70, Cl. 250-41.9
Rich, Theodore A.: *See—*
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Richard Manufacturing Co.: *See—*
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Richard, Walter Armond. Fishing lure. 3,492,753, 2-3-70, Cl. 43-35.
Richards, Albert G. Variable depth laminagraphy with means for highlighting the detail of selected lamina. 3,499,146, 3-3-70, Cl. 250-61.5
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Richards, Brian William, to International Standard Electric Corporation. No break electrical changeover. 3,493,777, 2-3-70, Cl. 307-60.
Richards, Cecil Graham Francis, to Richards, B. C., & Co., Pty. Ltd. Rotary ball valve and seal therefor. 3,522,930, 8-4-70, Cl. 251-315.
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Richards, Elmer A., to Caterpillar Tractor Company. Mechanical drive transmission. 3,508,450, 4-28-70, Cl. 74-340.
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Richards, Fredderick F., Jr. Lock. 3,487,666, 1-6-70, Cl. 70-150.
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Richards, George B. Fluid amplifier. 3,503,410, 3-31-70, Cl. 137-81.5
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Richards, James R. Method of manufacturing a highly sensitive fetal heart tranducer. 3,488,821, 1-13-70, Cl. 29-25.35
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Richards, Kenneth J., to United Aircraft Corporation. Process for flame cutting. 3,508,323, 4-28-70, Cl. 29-558.
Richards, Kenneth J., to United Aircraft Corporation. Flame cutting metals. 3,520,739, 7-14-70, Cl. 148-9.
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Richards, Philip C., to Bell Telephone Laboratories, Incorporated. Communication system call treatment selection method and apparatus. 3,525,817, 8-25-70, Cl. 179-18.
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Richards, William Thomas, to Premier Tool & Die Limited. Sink trainer. 3,525,105, 8-25-70, Cl. 4-287.
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Richardson, Arturo Jorge; and Walck, Robert E., Jr., to Du Pont de Nemours, E. I., and Company. Process for dyeing drawn filaments of aromatic polyamides with basic dyestuffs in the presence of an organic dye carrier. 3,506,990, 4-21-70, Cl. 8-172.
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Richardson, David A.; and Flanagan, Allan L., to Foxboro Company, The. Control apparatus and method for processes having long time lags. 3,517,680, 6-30-70, Cl. 137-2.
Richardson, David A.; and Olsen, Everett O., to Foxboro Company, The. Electronic control apparatus having improved transfer means. 3,550,014, 12-22-70, Cl. 328-1.
Richardson, Donald W.; Roscoe, Stanley N.; and Hechtman, Elliot P., to Hughes Aircraft Company. Navigation station identification. 3,504,165, 3-31-70, Cl. 235-150.23
Richardson, Dora Nellie, to Imperial Chemical Industries Limited. Trans-isomers of 1-(loweralkylamino- alkoxy)-phenyl-1,2-diphenyl-2-halo-ethylenes and the salts thereof. 3,493,606, 2-3-70, Cl. 260-501.18
Richardson, Edwin A., to Shell Oil Company. Electroless metal bonding of unconsolidated formations into consolidated formations. 3,500,926, 3-17-70, Cl. 166-292.
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Richardson, Harry L., to Chemical Construction Corporation. Continuous vacuum degassing apparatus with reverse drainage means. 3,525,510, 8-25-70, Cl. 266-34.
Richardson, Henry M.; Alberghini, Alfred C.; Wiley, Fred E.; and Larson, Wesley S., to Youngstown Sheet and Tube Company, The. Reinforced hollow plastic pipe. 3,530,901, 9-29-70, Cl. 138-144.
Richardson, Horace P.; and Gordon, John L., to United States of America, Interior. System for calibration of a differential pressure transducer. 3,508,431, 4-28-70, Cl. 73-4.
Richardson, Howard M. Hose reel. 3,493,009, 2-3-70, Cl. 137-355.17
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Richardson, Philip C.; and Lopez, Alfredo, Jr., to United States of America, Air Force. Electrocardiographic and bioelectric capacitive electrode. 3,500,823, 3-17-70, Cl. 128-2.06
Richardson, Philip, to Parsons, C. A., & Company Limited. Dynamo-electric machine with radial air gap winding and a vibration reducing arrangement between the stator core and winding. 3,546,503, 12-8-70, Cl. 310-51.
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Richardson, Robert W., to Eaton Yale & Towne, Inc. Vehicle safety device. 3,514,124, 5-26-70, Cl. 280-150.
Richardson, Rolland A., to Pacific Press & Shear Corporation. Stroke control for ram type machine. 3,524,384, 8-18-70, Cl. 91-35.
Richardson, Ronald E., to PPG Industries, Inc. Press bending apparatus with thin rigid pressing plates. 3,531,276, 9-29-70, Cl. 65-287.
Richardson, Ronald E.; Pereman, Gordon F.; Kellar, John D.; and Borremans, Jan G., to PPG Industries, Inc. Lifter for use with automatic tong unloader. 3,530,970, 9-29-70, Cl. 198-20.
Richardson, Roy A., to Motorola, Inc. Frequency modulation transmitter with crystal filter interposed between class C frequency multipliers for noise reduction. 3,496,470, 2-17-70, Cl. 325-146.
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Richman, Paul, to General Telephone & Electronics Laboratories, Incorporated. Bipolar MOS field effect transistor. 3,500,138, 3-10-70, Cl. 317-235.
Richman, Paul, to General Telephone & Electronics Laboratories, Incorporated. Solid state field effect device. 3,544,864, 12-1-70, Cl. 317-235.
Richman, Paul; and Zloczower, Walter, to General Telephone & Electronics Laboratories, Incorporated. Insulated-gate field effect transistors utilizing a high resistivity substrate. 3,493,824, 2-3-70, Cl. 317-235.
Richman, Peter D., to Leesona Corporation, mesne. Electrochemical cell including electrode having Pd-Pt catalyst. 3,510,356, 5-5-70, Cl. 136-186.
Richman, Peter D., to Leesona Corporation, mesne. Electrode including hydrophobic polymer, method of preparation and fuel cell therewith. 3,522,094, 7-28-70, Cl. 136-86.
Richman, Peter L. Harmonic-insensitive gated A. C.-to D. C. converter. 3,517,298, 6-23-70, Cl. 321-9.
Richman, Peter L., to Weston Instruments, Inc. RMS voltage measuring apparatus. 3,521,164, 7-21-70, Cl. 324-106.
Richman, Peter L., to Weston Instruments, Inc. Noise rejecting degital voltmeter. 3,544,895, 12-1-70, Cl. 324-99.
Richman, Peter L.; and West, James L., to Weston Instruments, Inc. Low frequency measuring apparatus with phase locked loop. 3,502,977, 3-24-70, Cl. 324-82.
Richman, Robert L.; McManus, Robert P.; and Kinkel, Lester J., to United States of America, Navy. Digital data communication network monitor system. 3,491,340, 1-20-70, Cl. 340-172.5
Richmond, Abraham W., to Vapor Corporation. Digital speed and control system. 3,525,044, 8-18-70, Cl. 324-173.
Richmond, Abraham W., to Vapor Corporation. Locomotive speed control device. 3,543,112, 11-24-70, Cl. 318-146.
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Jepson, Ivar; Morgan, John W.; and Richmond, James W.,3,498,048.
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Richmond, Moscow K. Load limiting power transmission system. 3,498,434, 3-3-70, Cl. 192-150.
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Richmond, William J.; Griffiths, Leonard B.; and Potter, Vernon C., to Mallory, P. R., & Co., Inc. Procedure for chill casting beryllium composite. 3,548,915, 12-22-70, Cl. 164-68.
Richmond, William J.; Griffiths, Leonard B.; and Potter, Vernon C., to Mallory, P. R., & Co. Inc. Procedure for chill casting beryllium composite. 3,548,948, 12-22-70, Cl. 169-1.
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Richter, Frederick; D'Anna, Frank T.; and Buckley, Patrick J., to Servo Corporation of America. Voltage controllable tuning circuit which responds linearly in frequency with linear dial changes. 3,528,043, 9-8-70, Cl. 334-14.
Richter, Fritz Carl, to Prontor-Werk Alfred Gauthier, G.m.b.H. Photographic self-cocking shutter with reciprocable shutter blades and driving device. 3,526,184, 9-1-70, Cl. 95-63.
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Richter, Robert C., to Cincinnati Milacron Inc. Stepping motor damper. 3,545,301, 12-8-70, Cl. 74-574.
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Rindner, Wilhelm; and Roth, Harold, to United States of America, National Aeronautics and Space Administration. Voltage-tunable Gunn-type microwave generator. 3,509,491, 4-28-70, Cl. 331-107.

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Rinehart, Verne R., to Goodyear Tire & Rubber Company, The. Purification of bis hydroxyethyl terephthalate. 3,492,334, 1-27-70, Cl. 260-475.

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Ring, Ernest A., to Watchemoket Optical Co., Inc. Safety goggle. 3,505,680, 4-14-70, Cl. 2-14.

Ring, Jack. Magnetically attractive identifying plates for attachment to X-ray cassettes. 3,518,428, 6-30-70, Cl. 250-67.

Ring, Richard N.; Oroslan, Andrew; and Tesoro, Giuliana C., to Stevens, J. P., & Co., Inc. Phosphonium modified polymers and process of making them. 3,549,309, 12-22-70, Cl. 8-120.

Ring, Richard N.: *See*—
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Ring, Wolfhard: *See*—
Hochmuth, Udo; Ring, Wolfhard; and Strache, Hanns,3,499,049.

Ringe, Carl H., to Tulcott, James, Inc., mesne. Underside lock-up device for printing plates. 3,515,066, 6-2-70, Cl. 101-378.

Ringelman, Ralph E.: *See*—
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Ringfeder GmbH: *See*—
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Ringle, Richard B.: *See*—
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Ringler, William H., to Esso Research and Engineering Company. Recovery of C_5-C_6 constituents from natural gas by compressing cooling and adiabatic autorefrigerative flashing. 3,542,673, 11-24-70, Cl. 208-340.

Ringold, Howard J.; Djerassi, Carl; and Edwards, John, to Syntex Corporation, mesne. 16-αMethyl-6α-fluoro derivatives of Reichstein substances S. 3,538,131, 11-3-70, Cl. 260-397.47

Ringsdorff-Werke GmbH: *See*—
Heimann, Conrad, 3,543,183.

Ringsmuth, Richard J.: *See*—
Fortescue, Peter; and Ringsmuth, Richard J.,3,533,911.

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Ringstad, Ralph H., to Automatic Switch Company. A.C. reverse current monitor. 3,525,904, 8-25-70, Cl. 317-43.

Ringwall, Carl G.: *See*—
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Shinn, Jeffrey N.; and Ringwall, Carl G.,3,540,290.

Rininger, Paul R., to Global Marine Inc. Pipe coupling. 3,520,561, 7-14-70, Cl. 285-24.

Rininger, Paul R.; Hanes, James W. E.; and Hynes, Joseph Henry, to Global Marine Inc. Conductor pipe alignment means for use in offshore drilling. 3,489,212, 1-13-70, Cl. 166-0.5

Rink, Charles N.; and Sauter, August, Jr., to Rink Corporation. Sound attenuator for air flow. 3,511,336, 5-12-70, Cl. 181-42.

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Rink, Hans: *See*—
Johl, Albert; Hartmann, Albert; and Rink, Hans,3,539,602.
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Rinke, Heinrich: *See*—
Oertel, Harald; Rosendahl, Friedrich-Karl; and Rinke, Heinrich,3,536,663.
Thoma, Wilhelm; and Rinke, Heinrich,3,491,180.
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Rinker, Carl G., to Atwater-Strong Company, Inc., The. Portable power-driven blower. 3,512,898, 5-19-70, Cl. 415-98.

Rinker, William R., to Goodrich, B. F., Company, The. Flexible hose. 3,548,882, 12-22-70, Cl. 138-129.

Rinkewich, Isaac Ronni, to Rinko Irrigation Systems, Inc. Irrigation system. 3,529,618, 9-22-70, Cl. 137-119.

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Rinkler, Heinrich: *See*—
Szita, Jeno; Rinkler, Heinrich; Nogaj, Alfred; Marzolph, Herbert; and Nischk, Gunther,3,520,855.
Szita, Jeno; Wieden, Horst; Rinkler, Heinrich; Marzolph, Herbert; and Nischk, Gunther,3,493,547.
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Miron, Roy R. H.; Huggins, Donald G.; Rinne, John E.; and Summerfelt, Vernon E.,3,505,769.

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Rio, Andre Louis Armand, to Rhone-Poulenc S.A. Dimethylformamide soluble phosphorus-containing polypyromellimides. 3,531,437, 9-29-70, Cl. 260-47.

Rio, Andre Louis Armand: *See*—
Marin, Gilbert Joseph; and Rio, Andre Louis Armand,3,513,131.

Rio, Arturo: *See*—
Cernia, Enrico; Rio, Arturo; and Malacari, Natale Ercoli,3,496,157.

Rio, Michel; and Chevalier, Marcel, to L'Air Liquide, Societe Anonyme pour l'Etude et l'Exploitation des Procedes Georges Claude. Apparatus for regenerating a breathable gas in individual respiratory device of the closed-circuit type. 3,527,214, 9-8-70, Cl. 128-191.

Riollet, Gilbert. Curved channels through which a gas or vapour flows. 3,529,631, 9-22-70, Cl. 138-39.

Riolo, Francois: *See*—
Dessoulavy, Roger; and Riolo, Francois,3,514,667.

Riordan, David J.: *See*—
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Riordan, Hugh E.: *See*—
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Cohen, Theodore A.; and Riordan, Hugh E.,3,539,921.

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Riordan, Hugh E., to Singer-General Precision, Inc. Pneumatic vibratory digital sensors. 3,505,880, 4-14-70, Cl. 73-515.

Riordan, Hugh E., to Kelsey-Hayes. Anti-skid braking system. 3,532,393, 10-6-70, Cl. 303-21.

Riordan, Hugh E., to Kelsey-Hayes Company. Skid control system. 3,547,500, 12-15-70, Cl. 303-21.

Riordan, Hugh E.; and Evans, John L., to Singer-General Precision, Inc. Pneumatic pickoff for use in two-axis attitude switch. 3,492,879, 2-3-70, Cl. 74-5.6

Riordan, Hugh E.; and Straut, Harold J., to Singer-General Precision, Inc. Fluid output closed-loop accelerometer. 3,501,946, 3-24-70, Cl. 73-515.
Jones, Malcolm D.; and Riordan, Hugh E.,3,551,712.
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Riordan, Robert Michael, to Dresser Industries, Inc. Pilot-actuated shut-off valve. 3,538,944, 11-10-70, Cl. 137-496.

Riordon, Peter R., to Chemcell Limited. Multi-stage drawing technique. 3,549,743, 12-22-70, Cl. 264-290.

Rios, Enrique J. Suspension scale with cam-type action. 3,534,824, 10-20-70, Cl. 177-221.

Rios, Urban, to American Buttermaster Corporation, mesne. Automatic butter-pat dispensing machine. 3,548,498, 12-22-70, Cl. 31-5.

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Arnoldy, Roman F., 3,513,288.
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Ripka, Josef; Hortlik, Frantisek; Junek, Jan; and Marsalek, Milan, to Uyzkummy Ustav Bavlnarsky. Break-spinning apparatus. 3,538,698, 11-10-70, Cl. 57-58.95

Ripka, William C.: *See*—
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Ripley Company, Inc.: *See*—
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Baskin, Robert C., 3,512,705.
Johnson, Allen L., 3,548,403.

Ripley, John F.; and Menke, Wallace W., to Micron Sealing Corporation. Transformer structure. 3,516,040, 6-2-70, Cl. 336-96.

Ripley, Richard E., to Textron Inc. Precision control of fluid flow. 3,508,563, 4-28-70, Cl. 137-81.5

Ripley, William L.; and Smith, Lloyd A., to United States of America, Navy. Pyrotechnic signaling device having water reactive igniter. 3,537,397, 11-3-70, Cl. 102-37.8

Ripper, Jose E.: *See*—
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Ripperger, Eugene A.: *See—*
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Rippie, Wallace Larimer, to Du Pont de Nemours, E. I., and Company. Polyamides containing the divalent 9,10- triptycene radical. 3,542,734, 11-24-70, Cl. 260-47.

Ripple, Melvin H., to Hoover Company, The. Flexible coupling for separable shafts. 3,542,178, 11-24-70, Cl. 192-108.

Rippy, Clyde M., Jr.: *See—*
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Ris, Bernard H.: *See—*
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Risacher, Gerard H., to Westinghouse Electric Corporation. Fabric conditioning device. 3,488,873, 1-13-70, Cl. 38-77.

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Knasinski, Max S.; and Risberg, Robert L.,3,548,279.

Risberg, Robert L., to Cutler-Hammer, Inc. Electronic tractor drive system. 3,534,239, 10-13-70, Cl. 318-52.

Risberg, Robert L., to Cutler-Hammer, Inc. Torque regulating pulse mode D.C. motor control using the motor in the regenerating or motoring modes. 3,538,404, 11-3-70, Cl. 318-6.

Risberg, Robert L.; and Serbiak, Richard P., to Cutler-Hammer, Inc. Static shunt motor crane hoist control system with field supply on power failure. 3,551,771, 12-29-70, Cl. 318-302.

Risberg, Robert L.; and Smith, Charles E., to Cutler-Hammer, Inc. Adjustable frequency control system having feedback for voltage and frequency regulation. 3,546,551, 12-8-70, Cl. 318-227.

Risch, William E.; and Acton, Daniel D., to Anchor Hocking Glass Corporation. Closure cap liner and method of making. 3,505,152, 4-7-70, Cl. 156-514.

Risch, William E.; and Grumbles, Samuel C., to Anchor Hocking Glass Corporation. Clean release innerseal. 3,501,042, 3-17-70, Cl. 215-40.

Rische, Ernst A., to Messer Griesheim GmbH. Apparatus for determining the energy factor in air separation plants. 3,535,632, 10-20-70, Cl. 324-71.

Risdon Manufacturing Company, The: *See—*
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Rise, Donald J.: *See—*
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Rise, Leif. Apparatus for expelling the contents of collapsible tube containers. 3,536,234, 10-27-70, Cl. 222-103.

Riseley, Edwin. Jointing of thermoplastic yarn. 3,492,181, 1-27-70, Cl. 156-158.

Riseman, Jacob: *See—*
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Riseman, John H.; and Shiller, Stanley, to Orion Research Incorporated. Electrochemical device. 3,492,216, 1-27-70, Cl. 204-195.

Risgin, Ojars, to Chain Lakes Research Associates, Inc. Standard or reference source of infrared radiation. 3,539,811, 11-10-70, Cl. 250-85.

Rishel, Everett D., to Caterpillar Tractor Company. Drill having indexable carbide inserts. 3,540,323, 11-17-70, Cl. 77-67.

Risher, Lanning P.: *See—*
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Rising, Robert P., to Perkin-Elmer Corporation, The. Panoramic camera. 3,532,039, 10-6-70, Cl. 95-12.5

Risk, Daniel W., to Coast Elevator Company. Flow control for fluid system. 3,498,183, 3-3-70, Cl. 91-48.

Risk, Norman E., to Caterpillar Tractor Company. Motor arrangement for regulating distribution of a load supported by a vehicular boom. 3,490,608, 1-20-70, Cl. 214-1.

Risken, William B. Combination hydrofoil and wheel apparatus for amphibious aircraft. 3,526,374, 9-1-70, Cl. 244-101.

Risky, Frank A., to Automatic Electric Laboratories, Inc. Line circuit scanner for electronic telephone systems. 3,524,933, 8-18-70, Cl. 179-18.

Riso, Vladimir, to International Business Machines Corporation. Analog multiplier. 3,544,812, 12-1-70, Cl. 307-229.

Risom, Jens; and Jacobs, Carl. Card catalog drawer. 3,495,731, 2-17-70, Cl. 220-4.

Rissberger, Arthur C., Jr., to Eastman Kodak company. Dynamically balanced spool. 3,540,670, 11-17-70, Cl. 242-71.8

Rissberger, Arthur C., Jr.: *See—*
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Risse, Hans, to Kienzle Uhrenfabriken G.m.b.H. Electronic circuit for driving time locking device. 3,491,280, 1-20-70, Cl. 318-178.

Risser, Carl B. Chicken carrier cart. 3,488,063, 1-6-70, Cl. 280-79.3

Risser, Roger L.; Blanshine, Allison W.; and Mc Carthy, Horace G., to Sperry Rand Corporation. Mowing device. 3,521,437, 7-21-70, Cl. 56-296.

Risser, Roger L.; Foulke, Edward D.; and Mc Carty, Horace G., to Sperry Rand Corporation. Mowing device. 3,548,574, 12-22-70, Cl. 56-298.

Rissi, Erwin: *See—*
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Rissolo, Basil D., to Edwards Company, Inc. Apparatus for detecting operating room electrical line ground faults. 3,492,567, 1-27-70, Cl. 324-51.

Ristance Corporation: *See—*
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Rister, Donald R.: *See—*
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Rister, Dwight. Flexible safety guard. 3,521,903, 7-28-70, Cl. 280-154.5

Ristuccia, Donald J.; and Oates, James C., to Westinghouse Electric Corporation. Electrical bushing mounted in casing with foamed resin. 3,515,799, 6-2-70, Cl. 174-153.

Ritchey, Charles R.: *See—*
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Ritchie, Alexander Crawford; Cheesman, Dennis George; Garside, Peter; and Waring, Juliet Mary, to Allen & Hanburys Limited. 1-Amino-pyridinium salts. 3,549,649, 12-22-70, Cl. 260-294.8

Ritchie, Alexander Crawford: *See—*
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Ritchie, David S., to Barr & Stroud Limited. Optical system for reading the scales of azimuth measuring instruments. 3,516,748, 6-23-70, Cl. 356-139.

Ritchie, John R., to Controlled Brands Food Institute Inc. Pocket sheet for loose-leaf binders. 3,528,602, 9-15-70, Cl. 229-68.

Ritchie, Robert T.: *See—*
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Rite Hardware Manufacturing Co.: *See—*
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Ritschel, Eugen: *See—*
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Ritscher, Werner Horst Gunther, to Werner & Pfleiderer. Method and apparatus for low-inertia or inertia- free temperature measurement. 3,507,152, 4-21-70, Cl. 73-341.

Ritscherle, Hans; and Gartler, Herbert, to Brown, Boveri & Cie Aktiengesellschaft. Overload protection device for an electric multirange measuring instrument. 3,541,391, 11-17-70, Cl. 317-9.

Ritsi, Michael C. Combination unit for feeding liquid and solid food. 3,549,036, 12-22-70, Cl. 215-11.

Ritson, Daniel Dickerson: *See—*
Coscia, Anthony Thomas; Ritson, Daniel Dickerson; Frazier, Charles; and Ross, Joseph Hansbro,3,549,568.

Ritson, Daniel Dickerson; and House, Ronald Raymond, to American Cyanamid Company. Coating composition comprising soluble starch or protein, melamine-formaldehyde resin and AC_{18} sugar. 3,532,647, 10-6-70, Cl. 260-6.

Ritt, Karl J. Cutting tool adapter. 3,537,492, 11-3-70, Cl. 144-136.

Rittenhouse, Glen G. Agricultural spraying machines. 3,490,695, 1-20-70, Cl. 239-77.

Rittenhouse, Larry E.: *See—*
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Ritter, Frederick J.: *See—*
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Ritter, George F., Jr., to Libbey-Owens-Ford Glass Company. Sheet shaping and conveying apparatus. 3,527,589, 9-8-70, Cl. 65-289.

Ritter, George F., Jr.; and Carson, Frank J., to Libbey-Owens-Ford Company. Edge grinding machine. 3,525,182, 8-25-70, Cl. 51-101.

Ritter, George F., Jr.: *See—*
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Welker, Robert H.; and Ritter, George F., Jr.,3,488,178.

Ritter, Gerhard; Gott, Hans; and Ritter, Josef, to EVG Entwicklungs- und Verwertungsgesellschaft m.b.H. Method of sequentially manufacturing wire meshes having different transverse wire spacings. 3,497,659, 2-24-70, Cl. 219-56.

Ritter, Gert: *See—*
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Ritter, Heinrich: *See—*
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Ritter, Heinrich; Beyerle, Rudi; and Nitz, Rolf-Eberhard, to Cassella Farbwerke Mainkur Aktiengesellschaft. 7-Hydroxy-3-aminoalkyl-2-oxo-1,2-dihycroquinoline esters and ethers. 3,514,459, 5-26-70, Cl. 260-287.

Ritter, Heinrich; Beyerle, Rudi; and Nitz, Rolf-Eberhard, to Cassella Farbwerke Mainkur Aktiengesellschaft. 3-Tertiary-aminoethyl-4-methyl or phenyl-7- ethoxycarbonylmethoxy-halo or mononitro oumarins and congeners. 3,515,721, 6-2-70, Cl. 260-247.2

Ritter, Henry, to Avco Corporation. Expandable rooms incorporating building construction. 3,541,750, 11-24-70, Cl. 52-65.

Ritter, John H. Ventilation system for industrial buildings. 3,492,936, 2-3-70, Cl. 98-42.

Ritter, John M., II: *See—*
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Ritter, John W.: *See—*
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Ritter, Josef: *See—*
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Ritter, Kaspar, to Kopat Gesellschaft Fur Konstrucktion. Axial piston unit usable as liquid pump and/or motor. 3,527,145, 9-8-70, Cl. 91-505.

Ritter, Klaus: *See—*
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Ritter, Ralph K.: *See—*
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Ritter, Robert L.; and Hendries, Ronald E., to Crescent Technology Corporation. Magnetic pulse generator protective device. 3,538,383, 11-3-70, Cl. 317-22.

Ritter, Rolland R., to Control Data Corporation. Signal recovering apparatus. 3,524,994, 8-18-70, Cl. 307-235.

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Ritter, Vern D.: *See—*
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Rittler, Eugen, to Knorr-Bremse GmbH. Magnetic braking system for railway vehicles. 3,498,680, 3-3-70, Cl. 303-3.

Rittman, Dieter, to Prontor-Werk Alfred Gauthier, G.m.b.H. Photographic shutter with electronic time forming device. 3,496,852, 2-24-70, Cl. 95-53.3

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Rittmann, Albert D.; and Knolinski, Robert E., to General Motors Corporation. Silicon gated rectifier control circuit. 3,504,202, 3-31-70, Cl. 307-293.

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Ritzau, William P.: *See—*
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Ritzenhoff, Hermann, to Gebruder Seidel K.G. Method of and apparatus for making metallic closures. 3,521,473, 7-21-70, Cl. 72-267.

Ritzenthaler, Richard L.: *See—*
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Ritzerfeld, Gerhard. Apparatus for printing selected numbers of lines. 3,489,081, 1-13-70, Cl. 101-91.

Ritzerfeld, Gerhard. Sheet receiving arrangement for printing machines. 3,489,083, 1-13-70, Cl. 101-232.

Ritzerfeld, Gerhard. Typing and recording apparatus. 3,490,688, 1-20-70, Cl. 234-36.

Ritzerfeld, Gerhard. Record carrier controlled printing and recording apparatus. 3,502,262, 3-24-70, Cl. 234-35.

Ritzerfeld, Gerhard. Method and arrangement for producing printing forms. 3,505,955, 4-14-70, Cl. 101-463.

Ritzerfeld, Gerhard. Arrangement for imprinting and punching cards. 3,508,487, 4-28-70, Cl. 101-19.

Ritzerfeld, Gerhard. Typewriter controlled recording apparatus. 3,515,338, 6-2-70, Cl. 234-18.

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Ritzerfeld, Gerhard. Method and apparatus for printing and recording on a card. 3,530,793, 9-29-70, Cl. 101-91.

Ritzerfeld, Gerhard. Magnetic printing arrangement. 3,530,794, 9-29-70, Cl. 101-216.

Ritzerfeld, Gerhard. Method of making metal printing form. 3,536,008, 10-27-70, Cl. 101-401.1

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Riutta, Wesley A., to Case, J. I., Company. Vehicle windshield cleaner. 3,531,817, 10-6-70, Cl. 15-250.04

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Buhler, Otto, 3,502,397.

Riva, Guido: *See—*
Riva, Pertro; and Riva, Guido,3,503,433.

Riva, Pertro; and Riva, Guido. Controlled recompression evaporator with regulated heating, feed and discharge. 3,503,433, 3-31-70, Cl. 159-44.

Rival Lamps Limited: *See—*
Salter, Derek F., 3,511,982.

Rival Manufacturing Company: *See—*
McLean, Robert E.; Chatfield, Norman A.; and Turner, Gary L., 3,496,635.
Scott, Robert J., 3,508,331.
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Rively, Clair M.; and Livera, Phillip A., to Westinghouse Electric Corporation. Flash evaporation of corrosive media. 3,537,886, 11-3-70, Cl. 117-107.

Rivera, Aureo E.: *See—*
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Rivera, Melberta Ann, to Scholl Mfg. Co., Inc., The. Bootee for hard casts. 3,497,875, 3-3-70, Cl. 2-239.

Rivers, Charles F. Elevator-type loader with metered discharge and automatic weighing. 3,494,434, 2-10-70, Cl. 177-53.

Rivers, Hubert M., to Calgon Corporation, mesne. Methods of analyzing conductive solutions. 3,531,252, 9-29-70, Cl. 23-230.

Rivers, Hubert M.: *See—*
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Rivers, John D., to Sun Electric Corporation. Magnetic tachometer generator. 3,504,208, 3-31-70, Cl. 310-156.

Riverside Mold & Die, Inc.: *See—*
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Rives, Joe Frank, to Huber, J. M., Corporation. Polished rod clamps. 3,538,559, 11-10-70, Cl. 24-249.

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Rivin, Donald; Aron, Jerome; and Donoian, Haig C., to Cabot Corporation. Sulfonated carbon black pigmented compositions. 3,519,452, 7-7-70, Cl. 106-261.

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Rivlin, Jonathan B., to Olin Mathieson Chemical Corporation. Polymerization process. 3,532,675, 10-6-70, Cl. 260-78.5

Rivo S.A.: *See—*
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Rivolier, Charles, to Societe Anonyme D.B.A. Headlight adjusting system. 3,551,668, 12-29-70, Cl. 240-61.1

Rix, Albert; Reiners, Siegfried; Ressel, Helmut; and Voigt, Manfred, to Olympia Werke AG. Half spacing escapement. 3,515,252, 6-2-70, Cl. 197-84.

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Crane, Burke J.; and Pasek, Frank S., 3,533,652.
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Riza, Eugene T. Adjustable wrench. 3,535,959, 10-27-70, Cl. 81-52.4

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Rizzo, Anthony R., to AFCO Products Inc. Waterproofing material. 3,497,417, 2-24-70, Cl. 161-224.

Rizzo, Leo L. Joint alignment device. 3,522,641, 8-4-70, Cl. 24-281.

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Rizzolo, Alfred T.; and Hicks, Warren F., to Cheston Company. Resistance metal heater. 3,548,149, 12-15-70, Cl. 219-156.

Rizzolo, Silvio, to Engelhard Minerals & Chemicals Corporation. Slip ring assembly. 3,509,512, 4-28-70, Cl. 339-8.

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Roach, David A., to Mapco Inc. Anhydrous ammonia pipeline system. 3,550,618, 12-29-70, Cl. 137-566.
Roach, Donald E., to Scovill Manufacturing Company, mesne. Welding gun. 3,521,024, 7-21-70, Cl. 219-89.
Roach, Robert A.: *See—*
Spisak, Raymond J.; and Roach, Robert A.,3,525,831.
Roach, Robert Joseph: *See—*
Mellish, Stuart Frederick; and Roach, Robert Joseph,3,547,791.
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Roach, Robert Lee, to West Chester Chemical Company. Sealants for fluid containers. 3,507,818, 4-21-70, Cl. 260-17.
Roach, Ronald John: *See—*
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Roach, William J., to Oxford Laboratories. Pipetting system. 3,494,201, 2-10-70, Cl. 73-425.6
Roaldsnes, Leiv, to A/S Hydraulik Brattvaag. Arrangements in the control system of hydrostatic winches of the low pressure type. 3,545,204, 12-8-70, Cl. 60-53.
Roantree Electro-Mech Corporation: *See—*
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Roantree, William J., to Roantree Electro-Mech Corporation. Gearing mechanism. 3,508,452, 4-28-70, Cl. 74-424.7
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Robapharm A.G.: *See—*
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Kuzara, James H.; Martin, Orval J.; and Robaszkiewicz, Gerald D.,3,507,362.
Robatino, Victor G., to United States of America, Army. Hidden channel communications system. 3,499,992, 3-10-70, Cl. 179-1.5
Robb, Howard E., to Gulf Oil Corporation. Polyamide compositions. 3,516,961, 6-23-70, Cl. 260-41.
Robb, Ian E.; and Malcolm, Marcy R., Jr., to International Telephone and Telegraph Corporation. Cable insulation piercing crimp tool, terminal, and method of forming. 3,531,971, 10-6-70, Cl. 72-385.
Robb, Joseph, & Company Limited: *See—*
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Robb, Walter L., to General Electric Company. Thin, substantially defect-free organopolysiloxane membrane. 3,510,387, 5-5-70, Cl. 161-112.
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Swanson, Arthur F.; and Robberson, Ronald F.,3,497,607.
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Robbins, Clyde F., to Cutler-Hammer, Inc. Toggle switch with pawl means for momentarily arresting it in intermediate position. 3,546,409, 12-8-70, Cl. 200-153.
Robbins, Daniel H., to Itek Corporation. Method of producing photographic negatives and prints. 3,519,346, 7-7-70, Cl. 355-77.
Robbins, Daniel H.; Fairbanks, Henry N.; Powers, Robert H.; and Pierce, Edmund J., to Itek Corporation. Optical viewer. 3,509,651, 5-5-70, Cl. 40-78.
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Robbins, Franklin. Acoustic diaphragm. 3,508,626, 4-28-70, Cl. 181-32.
Robbins, Harvey F.; and Robbins, Edward S., Jr., to National Floor Products Company, Inc. Method of making a cove molding in a continuous laminated process. 3,533,872, 10-13-70, Cl. 156-245.
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Sugden, David B., 3,544,075.
Robbins, Jim, Seat Belt Co.: *See—*
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Lewis, Gerald F.; and Palmieri, Ronald J., 3,535,001.
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Robbins, Roland W., Jr., to United States of America, Navy. Axial piston pump for nonlubricating fluids. 3,507,584, 4-21-70, Cl. 417-439.
Robbins, Roland W., Jr.; and Thorne, Stewart L., to United States of America, Navy. Optically clear roughened glass and method for making same. 3,533,897, 10-13-70, Cl. 161-117.
Robbins, Samuel B., to General Motors Corporation. Electromechanically and manually operable switch mechanism. 3,525,960, 8-25-70, Cl. 335-185.
Robbins, Saul. Doll having a body motion enabling it to crawl. 3,548,537, 12-22-70, Cl. 46-150.
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Roberg, Theodore W. Air filtering and pumping water fan construction. 3,525,505, 8-25-70, Cl. 261-25.
Roberson, James Harvey; and Price, Edward B., to Instrument Specialties Company, Inc. Shielding gaskets. 3,504,095, 3-31-70, Cl. 174-35.
Roberson, Jessie L. Rod spinner. 3,517,575, 6-30-70, Cl. 81-73.
Roberson, Wayne A., to Owens-Illinois, Inc. Container gauging and sorting apparatus. 3,537,579, 11-3-70, Cl. 209-73.
Robert, Aime J., to Uniroyal, Inc. Method of spray forming destructible forms. 3,538,213, 11-3-70, Cl. 264-225.
Robert, Armand J. Animated water fowl decoy or similar article. 3,537,205, 11-3-70, Cl. 43-3.
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Robert, Germaine Pauline Caroline; and Bauwens, Robert Oscar, to Societe Anonyme: Ugine Kuhlmann. Manufacture of sodium phosphate. 3,520,653, 7-14-70, Cl. 23-107.

Robert, Henri Marcel, to Compagnie des Ateliers et Forges de la Loire, (St. Chamond-Firminy, St. Etienne-Jacob Holtzer). Treatment of silicon-steel pickling baths. 3,499,735, 3-10-70, Cl. 23-299.
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Beckman, George Harold; and Robert, John,3,533,881.
Roberton, James Samuel Paterson; Dymoke-Bradshaw, Leslie Eugene Basil; and Lotay, Nirmal Singh, to International Standard Electric Corporation. Balanced armature magnetic percussion sounding device. 3,500,393, 3-10-70, Cl. 340-392.
Roberts, Albert Samuel, to Kennametal Inc. Apparatus for compacting finely-granulated materials. 3,550,198, 12-29-70, Cl. 18-5.
Roberts, Albert S., to Kennametal Inc. Device for sorting pin-like articles. 3,489,262, 1-13-70, Cl. 198-33.
Roberts, Albert, to Colgate-Palmolive Company. Apparatus for the manufacture of pressed tablets. 3,534,440, 10-20-70, Cl. 18-16.
Roberts, Alfred H. Winding machines. 3,549,454, 12-22-70, Cl. 156-425.
Roberts, Arthur H. Molded plastics article with interiors solidly filled and method of their manufacture. 3,547,747, 12-15-70, Cl. 161-7.
Roberts, Arthur Stanley, Sr., to Sperry Rand Corporation. Brushless D.C. motor including starting means. 3,493,831, 2-3-70, Cl. 318-138.
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Roberts, Carleton W.; and Travis, Gale D., to Dow Chemical Company, The. Halogenated polycyclic spiro compounds. 3,509,140, 4-28-70, Cl. 260-244.
Roberts, Carleton W.; and Travis, Gale D., to Dow Chemical Company, The. N-(Substituted phenyl)-1,2,3,4,-9,9-hexachloro-1,4,4α,5,6,7,8,8aboximides. 3,511,852, 5-12-70, Cl. 260-326.
Roberts, Carleton W.; and Travis, Gale D., to Dow Chemical Company, The. Certain 1,2,3,4,9,9-hexachloro-1,4,4a,5,6,7,8,8a- octahydro-1,4-methanonaphthalene-6,7-dicarboximides. 3,549,648, 12-22-70, Cl. 260-295.
Roberts, Charles B., to Dow Chemical Company, The. Automatic system for controlling environment of inert atmosphere box. 3,519,398, 7-7-70, Cl. 23-281.
Roberts, Charles B.; and Toner, Darell D., to Dow Chemical Company, The. Aluminum chlorohydride composition and method of preparation. 3,495,956, 2-17-70, Cl. 23-365.
Roberts, Charles B.; and Toner, Darrell D., to Dow Chemical Company, The. Method for the preparation of polymers of trimethylsiloxy aluminum dihydride. 3,530,078, 9-22-70, Cl. 260-2.
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Roberts, Edward S.; Gunther, Arnold; and Rogacki, Casimir A., to Treadwell Corporation, The. Sulfur dioxide recovery process. 3,511,027, 5-12-70, Cl. 55-44.
Roberts, Elliott J., to Dorr-Oliver Incorporated. Reduction of sulphates. 3,551,100, 12-29-70, Cl. 23-137.
Roberts, Eric, to Rolls-Royce Limited, mesne. Frequency measuring apparatus having a variable time base. 3,518,540, 6-30-70, Cl. 324-79.
Roberts, Eugene, to City of Hope. Analgesic-hypnotic therapy with 4- imidazoleacetic acid. 3,515,789, 6-2-70, Cl. 424-273.
Roberts, Eugene, to City of Hope. Chemotherapeutic compositions useful in animal detoxication. 3,542,929, 11-24-70, Cl. 424-317.
Roberts, Frank E.; and Harlan, Robert E. Thermocouple and sample holder apparatus for use in differential thermal analysis. 3,491,581, 1-27-70, Cl. 73-15.
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Roberts, Geoffrey. Tension meter. 3,512,406, 5-19-70, Cl. 73-144.
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Roberts, Henry; Epstein, Maurice; and Heier, Earl, to United States of America, Navy, mesne. Digital FM sweep generator. 3,548,320, 12-15-70, Cl. 328-46.
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Roberts, Hugh J.; Wimmer, Ernest L.; and Cowles, Roderick J., to Krause Milling Company. Foundry cores comprising cereal binder and a critical amount of water. 3,523,094, 8-4-70, Cl. 260-17.2
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Robinson, Franklin M.; Anderson, Paul S.; and Nicholson, James A., to Merck & Co., Inc.5,9-Diethyl-2'-hydroxy-2-substituted-6,7-benzomorphans. 3,499,906, 3-10-70, Cl. 260-293.4
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Robinson, Glen P., Jr., to Scientific-Atlanta, Inc. Method and apparatus for evacuating and gas-flushing packages. 3,508,373, 4-28-70, Cl. 53-12.
Robinson, Grover C., Jr.; Singleton, Ogle R., Jr.; and Jorstad, John L., Jr., to Reynolds Metals Company. Apparatus for centrifuging. 3,537,695, 11-3-70, Cl. 266-37.
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Robinson, Robert Burch. Apparatus for folding sheets. 3,510,031, 5-5-70, Cl. 223-37.
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Rochette, Walter L., to Singer-General Precision, Inc. Digital comparator. 3,500,382, 3-10-70, Cl. 340-347.

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Rochla, Kurt, to Windmoller & Holscher. Method for forming a heat-sealed end seam in a plastic tube. 3,544,407, 12-1-70, Cl. 156-198.

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Rocoplan, Jean; and Wack, Bernard, to Electricite de France (Service National). Apparatus for measuring the moisture content and density of the soil. 3,524,062, 8-11-70, Cl. 250-83.1

Roda, Luciano; and Caudioso, Camillo, to Ducati Elettrotecnica S.p.A. Generator with automatic static regulator. 3,543,128, 11-24-70, Cl. 320-61.

Roda, Luigi, to Park System AB. Car parking control cards. 3,528,186, 9-15-70, Cl. 40-5.

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Rodenberger, Charles A., to Meiller Research, Inc. Orthopedic shoe construction. 3,532,098, 10-6-70, Cl. 128-583.

Roder, Karl, to Daimler-Benz Aktiengesellschaft. Bearing support for a linkage lever at the drive pedal of motor vehicles. 3,507,167, 4-21-70, Cl. 74-560.

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Roder, Kurt; and Zander, Albert. Vertically adjustable column, particularly for swivel chairs. 3,506,234, 4-14-70, Cl. 248-412.

Roder, Philipp. Firearm with two or more adjustable barrels. 3,550,300, 12-29-70, Cl. 42-1.

Roder, Rolf: *See—*
Pradel, Georg; Richter, Heinz; and Roder, Rolf,3,519,829.

Roderburg, Harald: *See—*
Lehnert, Gunther; Roderburg, Harald; and Ziemek, Gerhard,3,544,752.

Roderer, Hermann, to U.S. Philips Corporation. Ignition control circuit having a phase shift network for controlled rectifiers connected in inverse parallel relationship. 3,502,960, 3-24-70, Cl. 323-24.

Rodeseike, Sigurd O.; and Samm, Ralph W., to I-T-E Imperial Corporation, mesne. Low voltage-high current switch means employing an expendable arcing contact assembly. 3,495,055, 2-10-70, Cl. 200-146.

Rodet, Jacques; and Reouf, Daniel, to U.S. Philips Corporation, mesne. Semiconductor header assembly and method of fabrication thereof. 3,528,102, 9-8-70, Cl. 317-234.

Rodewald, Arnold, to Haefely, Emil, & Cie. A.G. Circuit arrangement for charging and discharging multistage pulse generators. 3,504,191, 3-31-70, Cl. 307-110.

Rodewalt, Charles R. Vibration indicator. 3,504,533, 4-7-70, Cl. 73-71.

Rodgers, Alfred H. Portable camper. 3,489,453, 1-13-70, Cl. 296-23.

Rodgers, Barry, to Rolls-Royce Limited. Jet silencer for an aircraft jet engine. 3,495,681, 2-17-70, Cl. 181-45.

Rodgers, Burley G., to Dispensing Systems, Inc. Food dispensing machine with adjustable auger. 3,531,019, 9-29-70, Cl. 222-2.

Rodgers, Charles E. Urinary appliance. 3,532,092, 10-6-70, Cl. 128-283.

Rodgers, Clark A. Load adjusting vehicle for towed trailers. 3,526,289, 9-1-70, Cl. 180-7.

Rodgers, Eric: *See—*
Goodacre, Cecil; and Rodgers, Eric,3,534,623.

Rodgers, Franklin A., to Pactide Corporation. Compact multiple effect still having stacked impervious and pervious membranes. 3,497,423, 2-24-70, Cl. 202-174.

Rodgers, Gerald L.: *See—*
Patterson, Richard K., Jr.; and Rodgers, Gerald L.,3,492,558.

Rodgers, Harris G., Sr.: *See—*
Rajnik, Lawrence S.; and Rodgers, Harris G., Sr.,3,550,322.

Rodgers, James L., to Motorola, Inc. Movement responsive apparatus. 3,520,200, 7-14-70, Cl. 73-517.

Rodgers, Leonard John: *See—*
Monaghan, William Thomas; and Rodgers, Leonard John,3,492,821.

Rodgers, Michael Aaron: *See—*
Heinle, Preston Joseph; and Rodgers, Michael Aaron,3,508,434.

Rodgers Organ Co.: *See—*
Castle, Patrick M., 3,497,714.

Rodgers, Otis N.: *See—*
Binford, Robert F.; Rodgers, Otis N.; and Pace, George A.,3,516,689.

Rodgers, Steven S., to K.E.T.G. Corporation. Air conditioning method and system. 3,534,806, 10-20-70, Cl. 165-1.

Rodgers, William J.; and Hughes, Thomas A. Cable slack control device for clamshell rigs. 3,498,472, 3-3-70, Cl. 212-8.

Rodi & Wienenberger AG: *See—*
Kremer, Anton, 3,494,123.

Rodi, Marlyn W.: *See—*
O'Boyle, Emmett James; and Rodi, Marlyn W.,3,523,503.

Rodier, Christian: *See—*
Baluteau, Jean-Michel; and Rodier, Christian,3,515,460.

Rodin, John O.: *See—*
Burkholder, Wendell E.; Silverstein, Robert M.; Rodin, John O.; and Gorman, John E.,3,501,566.

Rodkin, Dennis L.; and Weber, Laurance A., to Bell Telephone Laboratories, Incorporated. PBX telephone system wherein switch units served through different central offices are controlled by control unit at one central office. 3,544,728, 12-1-70, Cl. 179-18.

Rodman, Charles W.: *See—*
Reich, Irving; Day, John B.; and Rodman, Charles W.,3,527,922.

Rodman, Clarence J.; and Broome, Thorne K., 1/2 each to said Rodman, d/b/a Alliance Tool Company. Composite coreboard having a plurality of partially nested, channel-shaped skin elements. 3,519,523, 7-7-70, Cl. 161-36.

Rodman, James B., Sr.: *See—*
Smith, Barton K.; Groff, Ralph W., Sr.; Rodman, James B., Sr.; Orzechowski, Henry F.; and Hartle, Joseph S., Sr.,3,531,907.

Rodot, Huguette, born Fumeron; and Verie, Christian, to Centre National de la Recherche Scientifique. Process of preparing a p-n junction in semiconductor alloys of mercury telluride and cadmium telluride. 3,514,347, 5-26-70, Cl. 148-186.

Rodrigues, Edouard Georges Daniel, to Chantiers Navals de la Ciotat. Method for making multiwall vessels. 3,514,839, 6-2-70, Cl. 29-463.

Rodriguez, Antonio R.; and Cronin, John, to Aerovox Corporation. Process for manufacturing a ceramic multilayer circuit module. 3,546,776, 12-15-70, Cl. 29-626.

Rodriguez, Ela Gonzalez; now by change of name to Keen, Ela. Hair dressing comb. 3,529,609, 9-22-70, Cl. 132-148.

Rodriguez, Humberto A.: *See—*
Russell, Fred J.; Armstrong, Richard L.; and Rodriguez, Humberto A.,3,503,233.

Rodriguez, Jose Antonio, to Westinghouse Bremsen-und Apparatebau G.m.b.H. Cylinder for spring-applied brake with emergency brake release. 3,498,188, 3-3-70, Cl. 92-29.

Rodriguez, Jose Molina, 1/2 to 'Agroman' Empress Constructora, S.A. Mechanism for widening galleries applicable to drilling machines. 3,491,843, 1-27-70, Cl. 175-53.

Rodriguez, Jose Pelaez. Foot-operated control valve attachment device for water faucets. 3,536,294, 10-27-70, Cl. 251-41.

Rodriguez, Rodney. Finger-operated brush. 3,505,700, 4-14-70, Cl. 15-160.

Rodriquez, Gumersindo: *See—*
Thompson, George J.; and Rodriquez, Gumersindo,3,507,976.

Rodwell, John R., to Varian Associates. Folded cylinder gas filled microwave switch tube having longitudinal ribs for gap spacing. 3,495,194, 2-10-70, Cl. 333-182.

Rodwick, Thomas E.: *See—*
Lemper, Herbert; Rodwick, Thomas E.; and Lowy, Paul M.,3,542,117.

Rody, Jean: *See—*
Kirchmayr, Rudolf; Heller, Hansjorg; and Rody, Jean,3,542,689.

Roe, Anthony Maitland: *See—*
Wiley, George Lawrence; and Roe, Anthony Maitland,3,513,239.

Roe, Donald Winston, to RCA Corporation. Conductive coatings of tin oxides. 3,537,890, 11-3-70, Cl. 117-211.

Roe, Glenn D.; and Youngman, Carl A., to Atlantic Richfield Company, The. Automatic sample changer for positioning a plurality of pellets in an X-ray analyzer. 3,527,942, 9-8-70, Cl. 250-51.5

Roe, Homer D. Tube joint. 3,528,689, 9-15-70, Cl. 285-382.2

Roe, Ralph C., to Saline Water Conversion Corporation, mesne. Distillation-condenser with vertically disaligned tubes. 3,501,382, 3-17-70, Cl. 202-185.

Roe, Ralph C., to Saline Water Conversion Corporation. Condenser tubes. 3,508,608, 4-28-70, Cl. 165-179.

Roe, Ralph C., to Saline Water Conversion Corporation. Horizontal tube condenser. 3,529,662, 9-22-70, Cl. 165-111.

Roe, Sheldon F., Jr., to Owens-Illinois, Inc. Production of molded containers. 3,491,170, 1-20-70, Cl. 264-24.

Roe, Sheldon F., Jr., to Owens-Illinois, Inc. Packaging milk. 3,512,996, 5-19-70, Cl. 99-171.

Roeber, Henry W.: *See—*
Gartner, Stanley J.; Regec, John J.; Roeber, Henry W.; and Smith, James M.,3,517,799.

Roebuck, William C.: *See—*
Comegys, Courtney L.; Freundlich, Jackson S.; and Roebuck, William C.,3,545,380.

Roed, Age E., to SAAB Aktiebolag. Aerodynamic landing roll braking of turbojet powered aircraft. 3,493,198, 2-3-70, Cl. 244-53.

Roedel, Hilmar: *See—*
Siggel, Erhard; Roedel, Hilmar; and Rein, Walter,3,504,080.

Roeder, George K. Hydraulic well pumping system. 3,517,741, 6-30-70, Cl. 166-106.

Roeder, George K. Fluid actuated down-hole pump. 3,540,814, 11-17-70, Cl. 417-399.

Roeder, Gordon A.: *See—*
Littlewood, Roy; and Roeder, Gordon A.,3,523,020.

Roeder, John, Jr., to Whirlpool Corporation. Absorber-heat exchanger for absorption refrigeration. 3,491,552, 1-27-70, Cl. 62-476.

Roeder, John, Jr., to Whirlpool Corporation. Absorption refrigeration system. 3,509,732, 5-5-70, Cl. 62-476.

Roederer, Friedhelm: *See—*
Schwarz, Hans Helmut; Hermann, Karl Heinz; Schnell, Hermann; and Roederer, Friedhelm,3,525,719.

Roediger, Herman R.: *See—*
Jurney, Joseph F.; and Roediger, Herman R.,3,544,034.

Roefaro, Thomas A. Tool for dressing freshly cut meat. 3,516,106, 6-23-70, Cl. 15-236.

Roehr, Kuno M.: *See—*
Thrasher, Paul M.; and Roehr, Kuno M.,3,501,594.

Roehr, Zbislaw M.; Berger, Richard; and Plasse, Paul A., said Berger and to said Plasse, mesne. Method of making large celled plastic materials with integral skins. 3,523,988, 8-11-70, Cl. 264-41.

Roehrig, Phillip J., to Aurora Corporation. Piano action. 3,545,329, 12-8-70, Cl. 84-251.

Roehrs, Herbert C.: *See—*
Matzek, Norman E.; Musinski, Donald F.; and Roehrs, Herbert C.,3,501,338.

Roelandt, Frank J.: *See—*
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Roelants, Gerald J.: *See—*
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Roell, Eduard. Irradiation-sensitive material adapted for development by aqueous developer solution. 3,529,965, 9-22-70, Cl. 96-91.

Roelofs, Robert F., to National Steel Corporation. Continuous casting apparatus. 3,547,182, 12-15-70, Cl. 164-281.

Roelofs, Thomas H.; and Weldon, Edward J., Jr., to Adtech Incorporated. Educational apparatus. 3,546,793, 12-15-70, Cl. 35-19.

Roemer, Erich, to Glyco-Metall-Werke, Daelen & Loos GmbH. Sliding surface or rubbing contact material. 3,540,862, 11-17-70, Cl. 29-182.5

Roemer, Philip; and Downhour, Russell, Jr., to General Foods Corporation. Starch of good water retention. 3,508,964, 4-28-70, Cl. 127-33.

Roemer, Philip; and Downhour, Russell, Jr., to General Foods Corporation. Drilling mud additives. 3,518,185, 6-30-70, Cl. 252-8.5

Roemgens, Hans: *See—*
Von Clave-Bouhiben, Manfred; and Roemgens, Hans,3,528,876.

Roenbaum, Jacob: *See—*
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Roerig, Arnold J.: *See—*
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Roerig, Arnold J.; and Brown, Kenton J., to Beloit Corporation. Chip feeder valve. 3,516,714, 6-23-70, Cl. 302-14.

Roesch, Edouard, to Dixi S.A. Gate relaxation oscillator. 3,517,326, 6-23-70, Cl. 331-57.

Roesch, Egon: *See—*
Breuer, Hermann; Hoehn, Hans; and Roesch, Egon,3,515,787.

Roesch Enamel & Manufacturing Company: *See—*
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Roesch, Kurt F.: *See—*
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Roesch, William C., to United States of America, Atomic Energy Commission. Whole-body-radiation counter with means for controlling the scanning velocity. 3,501,634, 3-17-70, Cl. 250-52.

Roesel, John F., Jr. Electric power generator. 3,521,149, 7-21-70, Cl. 322-47.

Roesky, Herbert W., to Du Pont de Nemours, E. I., and Company. 1,2,3,5,6,7,4,8-Hexathiadiphosphcane-4,8-dithioxo- 4,8-dithiolic acid and its salts. 3,533,736, 10-13-70, Cl. 23-106.

Roesner, Franz J.; Bogdan, Robert C.; and Breene, Peter S., to Roller Bearing Company of America. Self-aligning plastic lined bearing. 3,528,710, 9-15-70, Cl. 308-72.

Roessler: *See—*
Heimberger, Werner, 3,536,708.

Roessler, Edmund; Goltz, Kenneth P.; and Medlin, Martin M. Ditching machine having vertically adjustable wheels. 3,526,047, 9-1-70, Cl. 37-98.

Roetgerink, Johannes A.; and Muller, Gerardus P., to Machinefabriek M. Brouwer & Co. N.V. Device for sorting and directing conical bobbins. 3,500,985, 3-17-70, Cl. 198-33.

Roethke, Ernst: *See—*
Krauss, Paul; and Roethke, Ernst,3,491,526.

Roethlisberger, Jerry M., to General Motors Corporation. Pot type universal joint. 3,490,251, 1-20-70, Cl. 64-8.

Roettger, Raymond F., to Raygo, Inc. Soil compacting machine. 3,543,656, 12-1-70, Cl. 94-50.

Roettger, Raymond F.: *See—*
Garis, Gordon O.; and Roettger, Raymond F.,3,534,817.

Roever, William L., to Shell Oil Company. Radiation method and apparatus for mapping the surface characteristics of an object. 3,500,950, 3-17-70, Cl. 181-0.5

Roff, Jack H. Bumper jack container assembly. 3,513,969, 5-26-70, Cl. 206-16.

Roffia, Paolo: *See—*
Pregaglia, Gianfranco; Binaghi, Marco; and Roffia, Paolo,3,492,271.
Pregaglia, Gianfranco; Pozzi, Giancarlo; and Roffia, Paolo,3,488,323.

Roffler, Josua, to Sulzer Brothers Limited. Apparatus for separating water from wet steam prior to superheating of the steam. 3,500,796, 3-17-70, Cl. 122-34.

Rogacki, Casimir A.: *See—*
Roberts, Edward S.; Gunther, Arnold; and Rogacki, Casimir A.,3,511,027.

Rogal, Barry; and Bales, William Henry, to Rosemount Engineering Company Limited. Electrical resistance elements and method of making. 3,546,654, 12-8-70, Cl. 338-268.

Rogal Tube Bending Company, Inc.: *See—*
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Rogall, Herbert; and Fennell, Robert, to Singer-General Precision, Inc. Subminiature single axis accelerometer. 3,513,711, 5-26-70, Cl. 73-517.

Rogallo, Francis M. Control devices for flexible wing. 3,507,464, 4-21-70, Cl. 244-43.

Rogallo, Francis M. Variable area flexible wings. 3,534,931, 10-20-70, Cl. 244-138.

Rogalski, Werner; Wahlig, Helmut; and Hepding, Ludwig, to Merck, E., A.G. Antibiotics prepared from tetracycline and gentamicin. 3,510,555, 5-5-70, Cl. 424-119.

Rogde, Sigurd Owen: *See—*
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Roger, Karl Wolfgang: *See—*
Haslimann, Artur Alois; Morris, John; Roger, Karl Wolfgang; and Lehrer, Alfred,3,507,546.

Rogers, Adelle M.; and Christie, Thomas E. Douche and enema apparatus. 3,508,546, 4-28-70, Cl. 128-230.

Rogers, Alan B.; Schwall, Donald V.; and Posegate, Russell W., to Armour and Company. System for poultry injection. 3,507,207, 4-21-70, Cl. 99-257.

Rogers, Alan B.: *See—*
Schwall, Donald V.; Rogers, Alan B.; and Corbin, Dennis,3,528,820.

Rogers, Albert P., to Brunswick Corporation. Indexible tee for golf games. 3,529,831, 9-22-70, Cl. 273-195.

Rogers, Alexander K.: *See—*
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Rogers and Clarke Manufacturing Co.: *See—*
Clarke, Frederick W., 3,494,077.

Rogers, Arthur Carter, to Leesona Corporation, mesne. Fuel cell structure. 3,533,846, 10-13-70, Cl. 136-86.

Rogers, Benjamin T., to United States of America, Atomic Energy Commission. Mirror positioner for a rotating mirror camera. 3,527,110, 9-8-70, Cl. 74-89.15

Rogers, Chester D.: *See—*
Rogers, Roy H.; and Rogers, Chester D.,3,490,706.

Rogers, Claude E., to Dow Chemical Company, The. Method of laminating plastic films in absence of adhesive and heat sealing temperatures. 3,490,972, 1-20-70, Cl. 156-162.

Rogers Construction, Inc.: *See—*
Paul, John M., 3,524,352.

Rogers Corporation: *See—*
Abell, Jerrold J.; and Kosa, Bruce G., 3,529,049.
Abell, Jerrold J., 3,533,900.
Anderson, Paul L.; Randall, Benjamin J.; and Iosue, Michael F., 3,504,103.
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Traynor, Edward J.; and Ruffing, Charles R., 3,536,545.
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Zagusta, John A., 3,547,724.

Rogers, Donald B.; and Shannon, Robert D., to Du Pont de Nemours, E. I., and Company. Electrically conductive oxides containing palladium and their preparation. 3,498,931, 3-3-70, Cl. 252-518.

Rogers, Donald B.: *See—*
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Rogers, Donald E. Indicating means. 3,495,907, 2-17-70, Cl. 356-34.

Rogers, Edward Charles: *See—*
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Rogers, Edward F.: *See—*
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Rogers, Edward F.; and Clark, Robert L., to Merck & Co., Inc. Composition and method for combatting poultry coccidiosis with 3,6-dichlorobenzamide. 3,499,968, 3-10-70, Cl. 424-324.

Rogers, Edward F.; and Clark, Robert L., to Merck & Co., Inc. Anticoccidial pyrimidines. 3,510,480, 5-5-70, Cl. 260-240.
Patchett, Arthur A.; Clark, Robert L.; and Rogers, Edward F.,3,542,781.
Patchett, Arthur A.; Clark, Robert L.; and Rogers, Edward F.,3,542,851.

Rogers, Edward J.: *See—*
Chabala, Leonard V.; and Rogers, Edward J.,3,508,178.

Rogers, Eric, to Monsanto Chemical Limited. Dispersible rubber accelerators and stabilizers. 3,525,697, 8-25-70, Cl. 252-182.

Rogers, Ernest William, to Redifon Limited. Multistage wide band transistor amplifiers of the push-pull type. 3,488,603, 1-6-70, Cl. 330-15.

Rogers, Francis R.: *See—*
Peczkowski, Joseph L.; Dettweiler, Kenneth R.; and Rogers, Francis R.,3,540,217.

Rogers, Francis R.; and Greenawalt, De Foe L., to Bendix Corporation, The. Cascaded fluid flow control apparatus. 3,521,447, 7-21-70, Cl. 60-39.28

Rogers, Frank W., to Ransomes Sims & Jefferies Limited. Forklift trucks. 3,520,571, 7-14-70, Cl. 296-102.

Rogers, Frank, to United Kingdom Atomic Energy Authority. Apparatus for irradiating articles moving along a helical trackway. 3,530,294, 9-22-70, Cl. 250-52.

Rogers, Freels & Associates Inc.: *See—*
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Rogers, George J.: *See—*
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Rogers, George L., to General Electric Company. Square wave excitation of feedback devices. 3,519,904, 7-7-70, Cl. 318-18.

Rogers, Harry T.; and Rogers, James H., to Mac Manufacturing Company, Inc. Barrel transfer device. 3,534,850, 10-20-70, Cl. 198-233.

Rogers, Herbert I. Apparatus and simplified procedure for billing for credit purchases and the like. 3,519,202, 7-7-70, Cl. 234-35.

Rogers, Howard G., to Polaroid Corporation. Color diffusion transfer process with a methine or methylene coupler. 3,502,468, 3-24-70, Cl. 96-29.

Rogers, Howard G., to Polaroid Corporation. High-transmission light polarizer. 3,522,984, 8-4-70, Cl. 350-157.

Rogers, Howard G., to Polaroid Corporation. High-transmission light polarizer. 3,522,985, 8-4-70, Cl. 350-157.

Rogers, Howard G., to Polaroid Corporation. Light polarizing device. 3,528,723, 9-15-70, Cl. 350-157.

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Rogers, Jimmy D.; and Wormser, Joseph J., to LTV Electrosystems, Inc., mesne. Storage time subtraction circuit. 3,535,557, 10-20-70, Cl. 307-268.

Rogers, John F., to Clay, Lee, Products Company. Method for making branched conduits. 3,499,067, 3-3-70, Cl. 264-60.

Rogers, John Harlan, to Standard Engineering Company, The. Minimum tillage implement. 3,502,154, 3-24-70, Cl. 172-311.

Rogers, John V., to Rosenberry, W. K., d/b/a Zeta Research. Fast recovery monostable multivibrator and method. 3,548,220, 12-15-70, Cl. 307-273.

Rogers, Joseph N. Natural heat manifold. 3,504,695, 4-7-70, Cl. 137-340.

Rogers, Kendal T.: *See—*
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Bishop, Peter Harold Howard; and Rogers, Kenneth Francis,3,533,274.

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Rogers, Leslie Richard: *See—*
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Rogers, Lewis L., 3rd. Clamp. 3,523,312, 8-11-70, Cl. 5-327.

Rogers, Raymond J.; and Michaels, Thomas B., to United States of America, Navy, mesne. Synthesizer for step or vernier operation. 3,500,225, 3-10-70, Cl. 331-8.

Rogers, Richard E.: *See—*
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Rogers, Robert Neal: *See—*
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Rogers, Robert W.: *See—*
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Rogers, Roy H.; and Rogers, Chester D. Waste pulverizer. 3,490,706, 1-20-70, Cl. 241-186.

Rogers, Russell F. Metal-cutting chain saw. 3,537,347, 11-3-70, Cl. 83-201.15

Rogers, Stuart D., to Hanna Land Company. Telephone call indicator. 3,502,819, 3-24-70, Cl. 179-84.

Rogers, Thelmer A. Double vibrating flow. 3,508,411, 4-28-70, Cl. 61-72.6

Rogers, Thomas H., Jr.: *See—*
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Rogers, Waldo I., to Rusco Industries, Inc. Information transfer from a dielectric sheet. 3,534,395, 10-13-70, Cl. 235-61.11

Rogers, Waldo I.: *See—*
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Rogers, Walter C., Jr., to Mohasco Industries, Inc. Rocking and reclining chair. 3,537,747, 11-3-70, Cl. 297-85.

Rogers, William C. T-fitting for aircraft antennas. 3,532,805, 10-6-70, Cl. 174-156.

Rogers, William James Stuart: *See—*
Cowan, James MacMillan; Brooker, Frederick Edwin; Nield, Brian; Rogers, William James Stuart; Smith, Edmund; Tarpey, Frank; and Durnford, John,3,488,517.

Rogers, William M.: *See—*
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Rogers, William Paul, to Ultronic Systems Corporation. Shift register with variable transfer rate. 3,521,245, 7-21-70, Cl. 340-173.

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Roget, Jean Francois: *See—*
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Roget, Jean Francois; and Tarbouriech, Philippe Yvon, to Rhone-Poulenc S.A. Stepwise reactor. 3,511,615, 5-12-70, Cl. 23-283.

Rogg, Herman O. Twist latch. 3,514,820, 6-2-70, Cl. 24-221.

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Roggio, Salvatore, Jr.; and Roggio, Robert S., to Lehman Specialty Company. Cabinet construction. 3,523,716, 8-11-70, Cl. 312-257.

Rogier, Edgar R.: *See—*
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Rogier, Leonce Elie Robert, to Societe Anonyme Francaise du Ferodo. Disc-brake, especially for industrial use. 3,520,386, 7-14-70, Cl. 188-171.

Rogler, Walter: *See—*
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Rogol, Edmund. Two-wheeled foldable stroller. 3,532,353, 10-6-70, Cl. 280-36.

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Rolovich, Ivan; and Sorrentino, Pasquale, to Pierrel S.p.A.Oxytetracycline antibiotic compositions employing N-(beta-oxyethyl)piperazine or N-N'bis-(beta- oxyethyl)piperazine and magnesium chloride. 3,517,102, 6-23-70, Cl. 424-227.
Rolston, Dale R. Electrode holder for use with an electroencephalograph. 3,490,439, 1-20-70, Cl. 128-2.1
Rolund, Michael W.: *See—*
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Roman, James A., to United States of America, National Aeronautics and Space Administration. Biomedical electrode arrangement. 3,534,727, 10-20-70, Cl. 128-2.06
Roman, Robert J.: *See—*
Bundschuh, John J.; Roman, Robert J.; and Thomson, Kenneth W.,3,550,879.
Roman, Robert J., to Eastman Kodak Company. Motion picture projector. 3,514,196, 5-26-70, Cl. 352-79.
Roman, Robert J., to Eastman Kodak Company. Manually operated film stripper mechanism. 3,550,881, 12-29-70, Cl. 242-192.
Romancky, George A. Chain saw measuring device. 3,531,870, 10-6-70, Cl. 33-185.
Romanelli, Luciano. Air-conditioning apparatus. 3,537,512, 11-3-70, Cl. 165-48.
Romanens, Victor, to Bobst, J., and Son S.A. Mechanism for feeding a sheet material to a processing machine. 3,510,126, 5-5-70, Cl. 271-32.
Romanisio, Franco; and Ferrando, Carlo, to International Rectifier Corporation. Semiconductor device with massive electrodes and insulation housing. 3,541,402, 11-17-70, Cl. 317-234.
Romanjuk, Valentin Antonovich: *See—*
Bulanzhe, Jury Dmitrievich; Romanjuk, Valentin Antonovich; and Poddubny, Sergei Alexeevich,3,498,134.
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Karpacheva, Susanna Mikhailovna; Ivanov, Vladimir Dmitrievich; Muratov, Valerian Matveevich; Raginsky, Leonid Solomonovich; Romanov, Alexandr Vladimirovich; Shirsky, Alexandr Nikolaevich; Klimov, Igor Nikolaevich; and Simonov, Leonid Petrovich,3,531,093.
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Romanowski, Robert F., to General Motors Corporation. Flexible tooth improved windshield washer. 3,503,090, 3-31-70, Cl. 15-250.02
Romanowski, Robert F., to Qualitrol Corporation. Bellows controlled sudden pressure rise relay. 3,535,878, 10-27-70, Cl. 60-54.5
Romanski, Lon H.: *See—*
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Romary, Charles G., to Electro Oceanics, Inc. Magnet controlled fluid-proof connector. 3,496,500, 2-17-70, Cl. 335-205.
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Rombau, Paul, to Produits Chimiques Pechiney-Saint-Gobain. Process for extracting and concentrating europium. 3,515,509, 6-2-70, Cl. 23-22.
Romberg, Felix B. Automatic vehicle actuated gate. 3,490,175, 1-20-70, Cl. 49-364.
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Romberg, Harvey D. Silo unloading device. 3,528,568, 9-15-70, Cl. 214-17.
Romberg, Lars Anders Martin. Display devices. 3,505,751, 4-14-70, Cl. 40-152.1
Rome Industries, Incorporated: *See—*
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Rome, James A.: *See—*
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Rome, Martin, to Electro-Mechanical Research, Inc. Electronic device for searching for an tracking a radiant object having a selectively controllable imaging system. 3,496,363, 2-17-70, Cl. 250-203.
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Romen, Bruno. Method of making shoes with shape-holding supporting frame. 3,536,805, 10-27-70, Cl. 264-244.
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Romero, Frederick Blanchard. Propulsion chain and construction method. 3,542,485, 11-24-70, Cl. 416-7.
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Romero, Victor R., to Union Steel Products Company. Display for articles. 3,495,718, 2-17-70, Cl. 211-126.
Romero, Victor R., to Union Steel Products Company. Supermarket cart. 3,503,622, 3-31-70, Cl. 280-33.99
Romes, Roman. Cutting machine and control mechanism therefor. 3,490,322, 1-20-70, Cl. 83-76.
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Romney, Russell H. Pack carrier. 3,490,063, 1-13-70, Cl. 287-54.
Romney, Russell H.; and Fullmer, Rodger S. Adapter for multiple connections to intravenous fluid receptacles and the like. 3,512,806, 5-19-70, Cl. 285-137.
Romney, Russell H.; and Jensen, Billy M. Arm and instrument holding apparatus. 3,540,719, 11-17-70, Cl. 269-324.
Romo, Eloise H. Portable battery operated hair shampooer. 3,511,229, 5-12-70, Cl. 128-52.
Romo, Jorge; and Kratky, Joseph C., to Behlen Manufacturing Company, Inc. Building erection means. 3,546,831, 12-15-70, Cl. 52-115.
Romocki, Julian Michal Erazm; and Towell, Gordon, to Canadian Industries Limited. Explosive package. 3,534,685, 10-20-70, Cl. 102-24.
Romoli, Luciano, to Billi, G., & C. S.p.A. Circular knitting machines. 3,529,444, 9-22-70, Cl. 66-157.
Romoli, Mario. Self-compressed continuous circular internal combustion engine. 3,541,787, 11-24-70, Cl. 60-39.06
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Ronco, Karl; Mueller, Willy; and Mueller, Paul, to Ciba Limited. Monoazo dyestuff pigments. 3,509,124, 4-28-70, Cl. 260-203.
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Ronden, Clifford P., to Cupples Container Company. Extrusion die. 3,513,504, 5-26-70, Cl. 18-14.
Ronden, Clifford P., to Cupples Container Company. Recovery and utilization of scrap in production of foamed vinyl aromatic polymeric products. 3,535,408, 10-20-70, Cl. 264-37.
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Rongved, Lief; and Zucker, Henry, to Bell Telephone Laboratories, Incorporated. Cassegrain antenna having dielectric supporting structure for subreflector. 3,530,480, 9-22-70, Cl. 343-781.
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Ronka, Vaino, to Geonics Limited. Loudspeaker. 3,542,149, 11-24-70, Cl. 181-0.5
Ronnholm, Arvi Aiol; Kaartamo, Juhani Jyry; and Puurunen, Juhani Eevertti, to Rosenlew, W., & Co., AB. Tube heat exchanger. 3,507,323, 4-21-70, Cl. 165-145.
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Ronzani, Angelo Levico, to S.p.A. Secoblitz Industria Meccanica. Marble blocks saw with multiple cutters. 3,547,096, 12-15-70, Cl. 125-13.
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Rooklyn, Jack, to Republic Corporation. Indexer. 3,550,534, 12-29-70, Cl. 104-103.
Rooklyn, Jack, to Republic Corporation. Transportation system. 3,550,535, 12-29-70, Cl. 104-118.
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Rooney, John P., to Varian Associates. Cylindrical surface horn forming a transition between a closed periodic circuit and an open sided periodic circuit. 3,513,416, 5-19-70, Cl. 333-73.
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Roop, William Roger, 1/3 to Zent, Maurice Rhodes. Milking machines. 3,499,465, 3-10-70, Cl. 137-624.13

Roos, Charles W.: *See—*
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Roos, Charles William; and Cova, Dario R., to Monsanto Company. Steam distillation of polyphenyl ethers under reduced pressure with or without alumina treatment. 3,513,077, 5-19-70, Cl. 203-29.

Roos, Erling, to Metallverken Essem Plast AB. Pipe couplings. 3,532,367, 10-6-70, Cl. 285-302.

Roos, Gunther: *See—*
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Roos, Heinz, to International Standard Electric Corporation. Signalling system using time-division-multiplex. 3,516,071, 6-2-70, Cl. 340-172.5

Roos, John Treymann, to Bird Machine Company. Aeration apparatus. 3,515,375, 6-2-70, Cl. 259-95.

Roos, John Treymann, to Bird Machine Company. Mechanical surface aerator. 3,539,158, 11-10-70, Cl. 261-36.

Roos, Leo, to Du Pont de Nemours, E. I., and Company. Ferric hydrocarbon-ammonium salts and their preparation. 3,504,004, 3-31-70, Cl. 260-439.

Roos, Leo, to Du Pont de Nemours, E. I., and Company. Photopolymerizable compositions containing organometal compounds. 3,547,651, 12-15-70, Cl. 96-115.

Roos, Leo, to Du Pont de Nemours, E. I., and Company. Image-forming compositions containing polymer binding agents and coordination complexes of iron (III) organic salts. 3,549,376, 12-22-70, Cl. 96-92.

Roos, Paul J., to Grooming Developers, Inc. Tool for applying false eyelashes. 3,547,135, 12-15-70, Cl. 132-32.

Roos, William J., to MPB Corporation. Method of making a spherical bearing assembly. 3,499,201, 3-10-70, Cl. 29-149.5

Roos, William N., to De Zurik Corporation. Butterfly valve. 3,517,689, 6-30-70, Cl. 137-329.01

Root, Bernard H.: *See—*
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Root, Charles B.: *See—*
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Root, James R., to Ruskin Manufacturing Company. Damper construction and spring. 3,525,378, 8-25-70, Cl. 160-1.

Root, John J., to Molecular Energy Corporation. Reversible electrolytic cells. 3,492,168, 1-27-70, Cl. 136-153.

Root, Lloyd B. Wave propelled boat. 3,508,516, 4-28-70, Cl. 115-4.

Root, Robert S., to Lipe-Rollway Corporation. Clutch anti-rattle inner plate. 3,548,984, 12-22-70, Cl. 192-70.17

Root, Robert S., to Lipe-Rollway Corporation. Self-adjusting clutch mechanism. 3,548,989, 12-22-70, Cl. 192-111.

Root, Wayne N.; and Uitti, Kenneth D., to Universal Oil Products Company. Catalytic conversion process. 3,515,766, 6-2-70, Cl. 260-669.

Root, Wayne N.: *See—*
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Root, William A.: *See—*
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Root, William L., 3rd; Sturman, Valentine; and Mery, Milton S., to Bethlehem Corporation, The. Mixer. 3,500,901, 3-17-70, Cl. 165-86.

Root-Lowell Manufacturing Company: *See—*
Collins, Dean E., 3,522,911.

Rootes Motors Limited: *See—*
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Roozee, James Burton, to Vandercook & Sons, Inc. Multicolor rotary offset printing press with cylinder interruption. 3,536,006, 10-27-70, Cl. 101-137.

Rope, Eugene L.; and Tricoles, Gus P., to General Dynamics Corporation. Waveguide antenna with dielectric guiding structure at aperture. 3,508,276, 4-21-70, Cl. 343-771.

Roper, Charles R.: *See—*
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Roper, William H.; Roper, Robert E.; and Roper, Charles R.,3,516,571.

Roper Corporation: *See—*
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Gobin, Donald L., 3,527,469.

Roper, Daniel W., to Eaton Yale & Towne, Inc. Engine accessory drive. 3,498,272, 3-3-70, Cl. 123-41.12

Roper, Daniel W., to Eaton Yale & Towne, Inc. Centrifugally actuated locking differential. 3,517,573, 6-30-70, Cl. 74-711.

Roper, Edward Cullum, to American Machine & Foundry Company. Foamed plastic paddle or vane. 3,548,522, 12-22-70, Cl. 37-43.

Roper, Francis George, to Gas Council, The. Gas burners. 3,544,255, 12-1-70, Cl. 431-350.

Roper, Frank: *See—*
Roper, William H.; Roper, Robert E.; and Roper, Charles R., 3,515,306.
Roper, William H.; Roper, Robert E.; and Roper, Charles R., 3,516,571.

Roper, John H. Gas pressure producing apparatus. 3,500,635, 3-17-70, Cl. 60-29.

Roper, Ralph E., to Wallace Expanding Machines, Inc. Method and apparatus for forming sheet metal corner members. 3,530,272, 9-22-70, Cl. 219-125.

Roper, Robert E.: *See—*
Roper, William H.; Roper, Robert E.; and Roper, Charles R.,3,515,306.
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Kagan, George M.; and Roper, Robert,3,549,567.

Roper, Robert, to Esso Research and Engineering Company. Water-soluble polyester coatings. 3,499,855, 3-10-70, Cl. 260-22.

Roper, William H.; Roper, Robert E.; and Roper, Charles R., 1/5 to Roper, Frank, and 1/5 to Miller, Ralph A. Container with cover and hidden cover release. 3,515,306, 6-2-70, Cl. 220-60.

Roper, William H.; Roper, Robert E.; and Roper, Charles R., 1/5 to Roper, Frank, and 1/5 to Miller, Ralph A. Container and cover therefor. 3,516,571, 6-23-70, Cl. 220-60.

Ropertz, Johann, to Schloemann Aktiengesellschaft. Drawing presses. 3,548,626, 12-22-70, Cl. 72-344.

Ropp, Richard C., to Westinghouse Electric Corporation. Method of preparing dysprosium-activated rare- earth metal vanadate phosphor. 3,501,412, 3-17-70, Cl. 252-301.4

Ropp, Richard C., to Westinghouse Electric Corporation. Method of coprecipitating mixed re-earth orthophosphates suitable for making phosphor. 3,507,804, 4-21-70, Cl. 252-301.4

Ropp, Richard C., to Westinghouse Electric Corporation. Method of preparing rare-earth metal-activated rare-earth metal vanadate phosphor. 3,511,785, 5-12-70, Cl. 252-301.4

Roppel, Alfred, to Niezoldi & Kramer GmbH. Photographic camera with a detachable handle. 3,539,253, 11-10-70, Cl. 352-243.

Roppel, Alfred; and Roth, Johann, to Niezoldi & Kramer GmbH. Motion picture camera with adjustable shutter. 3,531,194, 9-29-70, Cl. 352-216.

Roquemore, Troy L. Garage door handle. 3,499,182, 3-10-70, Cl. 16-112.

Roquet, Raymond Jacques Charles: *See—*
Pichot, Michel Georges Andre; and Roquet, Raymond Jacques Charles,3,551,610.

Rorden, William L.: *See—*
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Rore, Walter J.: *See—*
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Rorer, Donald R., to Stone Container Corporation. Skin package. 3,507,383, 4-21-70, Cl. 206-46.

Rorer, Donald R., to Stone Container Corporation. Vacuum system for skin packaging apparatus. 3,512,335, 5-19-70, Cl. 53-112.

Rorer, Donald R., to Stone Container Corporation. Vacuum system for skin-packaging machines. 3,534,521, 10-20-70, Cl. 53-22.

Rorer, Donald R., to Stone Container Corporation. Automatic package handling apparatus for a skin- packaging machine. 3,550,348, 12-29-70, Cl. 53-112.

Rorig, Kurt J.: *See—*
Hamilton, Robert W.; and Rorig, Kurt J.,3,549,646.

Rork, Danny W., to National Cash Register Company, The. Non-destructive readout magnetic storage element. 3,535,703, 10-20-70, Cl. 340-174.

Rork, Danny W., to National Cash Register Company, The. Associative memory system. 3,543,254, 11-24-70, Cl. 340-174.

Rosa, John: *See—*
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Paice, Derek A.; and Rosa, John,3,526,816.

Rosa, Richard J., to Avco Corporation. Coal preheating system for magnetohydrodynamic devices. 3,531,665, 9-29-70, Cl. 310-11.

Rosacker, Eugene E.: *See—*
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Rosaen, Borje O.: *See—*
Rosaen, Nils O., 3,493,113.

Rosaen, Borje O., to Parker-Hannifin Corporation, mesne. Fluid filter with shut-off valves. 3,526,251, 9-1-70, Cl. 137-625.29

Rosaen, Borje O.: *See—*
Rosaen, Nils O.; Rosaen, Oscar E.; and Rosaen, Borje O.,3,519,131.

Rosaen, Nils O., to Parker-Hannifin Corporation, mesne. Filter device with tubular guide means. 3,487,930, 1-6-70, Cl. 210-90.

Rosaen, Nils O., to Parker-Hannifin Corporation, mesne. Multiple filter device. 3,493,110, 2-3-70, Cl. 210-90.

Rosaen, Nils O., 1/2 to Rosaen, Borje O. Dual clean filter with fluid cylinder rotating means. 3,493,113, 2-3-70, Cl. 210-108.

Rosaen, Nils O., to Parker-Hannifin Corporation. Filter device. 3,507,391, 4-21-70, Cl. 210-90.

Rosaen, Nils O., to Parker-Hannifin Corporation. Filter device with shock absorbing means. 3,512,645, 5-19-70, Cl. 210-130.

Rosaen, Nils O., to Universal Filters, Inc., mesne. Fluid system with self cleaning filter. 3,542,197, 11-24-70, Cl. 210-108.

Rosaen, Nils O.; Rosaen, Oscar E.; and Rosaen, Borje O., to Parker-Hannifin Corporation. Reservoir filter and indicator. 3,519,131, 7-7-70, Cl. 210-90.

Rosaen, Oscar E.: *See—*
Rosaen, Nils O.; Rosaen, Oscar E.; and Rosaen, Borje O.,3,519,131.

Rosales, Louis A.: *See—*
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United States of America,National Aeronautics and Space Administration, Administrator, 3,532,128.

Rosan, Jose, Sr.; and Reece, Marvin P. Broaching tool. 3,540,101, 11-17-70, Cl. 29-95.1

Rosan, Jose, Sr.; Weber, Robert D.; and Reece, Marvin P. Sealed press nut having a spring retained floating nut element. 3,508,592, 4-28-70, Cl. 151-41.7

Rosander, Judge E. Kneeling pad. 3,499,502, 3-10-70, Cl. 182-230.

Rosander, Judge E. Scaffold moving and guiding device. 3,503,466, 3-31-70, Cl. 182-13.

Rosansky, Martin G.; and Jagid, Bruce, to Leesona Corporation. Metal/air batteries. 3,513,030, 5-19-70, Cl. 136-86.

Rosauer, Peter J., to Magnaflux Corporation. Medical ultrasonic diagnostic system. 3,547,101, 12-15-70, Cl. 128-2.

Rosberg, Sven Fredrick Johan. Machines for form milling of shoe soles and heels. 3,487,488, 1-6-70, Cl. 12-86.7

Roschilla, Cosimo. Distributor utilizing a stationary cam plate coacting with a resilient self-wiping contactor. 3,506,796, 4-14-70, Cl. 200-19.

Roschupkin, Vladimir Ivanovich; Zalkin, Semen Lvovich; and Lovchev, Stanislav Vasilievich, to Gosudarstvenny Nauchno-Issledovatelsky I Proektny Institut Neftyanogo Mashinostroenia. Multicylinder pump for liquids. 3,532,029, 10-6-70, Cl. 92-60.

Rosciszewski, Jan J., to General Dynamics Corporation. Electrogasdynamic generator method and apparatus. 3,508,085, 4-21-70, Cl. 310-10.

Rosciszewski, Jan J. Ground oriented vehicle with reaction type propulsion. 3,543,685, 12-1-70, Cl. 104-23.

Roscoe, Howard E., to FMC Corporation. Unwind stand web tenion control system. 3,528,620, 9-15-70, Cl. 242-58.4

Roscoe, Howard E.; and White, Daniel A., to FMC Corporation. Auxiliary torque drive for tension brake system in high speed printing press. 3,501,108, 3-17-70, Cl. 242-75.5

Roscoe, Stanley N., to Hughes Aircraft Company. Instrument landing display system. 3,501,765, 3-17-70, Cl. 343-108.

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Rose, Alan D.; and Woolman, Ronald, to Bitumen Industries Limited, mesne. Production of double glazing units. 3,527,663, 9-8-70, Cl. 161-45.

Rose, Benjamin Franklin, Jr., to Aerojet-General Corporation. Auxiliary sewage storage system for temporarily storing sewage. 3,503,413, 3-31-70, Cl. 137-266.

Rose, Bernard R.; Mohr, Clifford; and Williams, Samuel B., to Republic Corporation. Chimneyless fireplace structure. 3,533,394, 10-13-70, Cl. 126-121.

Rose, Bernhard: *See—*
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Rose, Charles F., to RCA Corporation. Magnetic tape cassette player apparatus. 3,532,293, 10-6-70, Cl. 242-200.

Rose, Clarence W.; and Sharp, Jonathan E., to Rose Manufacturing Company, mesne. Child's safety belt. 3,529,864, 9-22-70, Cl. 297-387.

Rose, David A., to Superior Seal Devices. Journal box seal. 3,501,156, 3-17-70, Cl. 277-130.

Rose, David J., to General Motors Corporation. Electromagnetic forming apparatus. 3,543,550, 12-1-70, Cl. 72-56.

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Shann, James, 3,522,768.

Rose, Earl E., to Phillips Petroleum Company. Conveying apparatus or printing equipment. 3,512,478, 5-19-70, Cl. 101-38.

Rose, Ellsworth S. Cable duct or raceway and support for partition walls. 3,551,584, 12-29-70, Cl. 174-49.

Rose, Fred A.; and Congdon, George L., to Air Reduction Company, Incorporated. Automatic vaporizer controller. 3,524,463, 8-18-70, Cl. 137-93.

Rose, Gary W.: *See—*
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Rose, Glenn R., to Programmed & Remote Systems Corporation. Pneumatic painting programmer. 3,529,572, 9-22-70, Cl. 118-7.

Rose, Harold B.; and Nielsen, David B., to Behlman-Invar Electronics Corporation. Wien bridge oscillator with low transient frequency switching circuit. 3,514,717, 5-26-70, Cl. 331-141.

Rose, Herbert M.: *See—*
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Rose, Howard L. Pressure band detector. 3,504,690, 4-7-70, Cl. 137-81.5

Rose, Irving B. Lift and dump device. 3,528,577, 9-15-70, Cl. 214-313.

Rose, Jack H.; and Matherly, Robert P., to Massey-Ferguson Inc. Adjustable snowmobile suspension. 3,494,438, 2-10-70, Cl. 180-5.

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Rose, John Brewster; Mathews, Carl Fraser; Nield, Eric; and Vincent, Peter Incledon, to Imperial Chemical Industries Limited. Thermoplastic compositions. 3,549,725, 12-22-70, Cl. 260-876.

Rose, John J., to Re-Nu, Inc. Pressure filling and relief valve. 3,495,622, 2-17-70, Cl. 137-588.

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Rose, Klaus; Schacht, Hans; Vogt, Dieter; Wiedenhofer, Eberhard; Cub, Fritz; and Lammermann, Heinz, to Bosch, Robert, G.m.b.H. Filter. 3,494,466, 2-10-70, Cl. 210-232.

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Rose, Michael James; Carosella, Jerry Michael; Corrick, John Douglas; and Sutton, Joseph Augustine, to United States of America, Interior. Method for producing protein by growth of microorganisms on a water extract of coal. 3,540,983, 11-17-70, Cl. 195-28.

Rose, Michael V., to St. Joseph Lead Company. Method of making lead particles for non-bubbling dispersion strengthened lead. 3,499,800, 3-10-70, Cl. 148-6.3

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Rose, Roger A., to Monsanto Company. Process for preparing water-soluble salts of organic phosphorus acids. 3,527,795, 9-8-70, Cl. 260-502.4

Rose, Selwyn H., to Horizons Incorporated. Extreme service phosphonitrile elastomers. 3,515,688, 6-2-70, Cl. 260-2.

Rose, Sigmund P. Parachute opening device. 3,545,704, 12-8-70, Cl. 244-149.

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Rosecrans, John E. Apparatus for placing flexible packages in shipping containers. 3,512,336, 5-19-70, Cl. 53-164.

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Roselius, Charles F.; Pelikan, George A.; and Maggio, Albert C., to Ellcon-National, Inc. Railway car braking apparatus. 3,550,731, 12-29-70, Cl. 188-153.

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Rosen, Henri Elliott. Shoe construction. 3,541,708, 11-24-70, Cl. 36-2.5
Rosen, Herbert J., to Hooker Chemical Corporation. Polymer recovery and purification process. 3,499,883, 3-10-70, Cl. 260-94.7
Rosen, Karl Isac Joel, to Nyman, Curt L. Method and a device for withdrawing from a liquid bath, normalizing and arranging in mesh alignment a knitted hose or the like. 3,508,286, 4-28-70, Cl. 8-151.
Rosen, Karl Isac Joel. Method for storing yarn for the immediate need of yarn of knitting machines. 3,549,299, 12-22-70, Cl. 242-47.12
Rosen, Leon D. Music device. 3,535,973, 10-27-70, Cl. 84-97.
Rosen, Lowell, to United States of America, National Aeronautics and Space Administration. Recording and reconstructing focused image holograms. 3,535,012, 10-20-70, Cl. 350-3.5
Rosen, Lowell, to United States of America, National Aeronautics and Space Administration. Focused image holography with extended sources. 3,535,013, 10-20-70, Cl. 350-3.5
Rosen, Lowell, to United States of America, National Aeronautics and Space Administration. Method and means for recording and reconstructing holograms without use of a reference beam. 3,540,790, 11-17-70, Cl. 350-3.5
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Rosenberg, David S.; and Olotka, Fred T., to Hooker Chemical Corporation. Photochlorination process. 3,528,900, 9-15-70, Cl. 204-163.
Rosenberg, David, to Pall Corporation. Gas separator. 3,523,408, 8-11-70, Cl. 55-159.
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Rosenberg, Robert B.; Huebler, Jack; and Kweller, Esher R., to Institute of Gas Technology. Incinerator. 3,509,834, 5-5-70, Cl. 110-8.
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Rosenzweig, William: *See—*
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Roseta, Eli; and Rogers, Lawrence M., to Continental Can Company, Inc. Internal electrode drive. 3,546,416, 12-8-70, Cl. 219-81.
Rosevear, David John: *See—*
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Roshaven, Harold L. Tailgate loading ramp. 3,510,015, 5-5-70, Cl. 214-85.
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Rosier, Laurence L., to International Business Machines Corporation. Four layer diode device insensitive to rate effect and method of manufacture. 3,517,280, 6-23-70, Cl. 317-235.
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Rosin, George C.; and Spafford, Ralph W., to Eaton Yale & Towne, Inc. Method and apparatus for automatic load transfer. 3,531,705, 9-29-70, Cl. 318-567.

Rosin, Jacob, to Chris-Craft Industries, Inc. Production of o-chlorobenzalmalononitrile. 3,549,683, 12-22-70, Cl. 260-465.

Rosin, Jacob, to Chris-Craft Industries, Inc. Production of o-chlorobenzalmalononitrile. 3,549,684, 12-22-70, Cl. 260-465.

Rosin, Jacob; and Ang, Frank, to Chris-Craft Industries, Inc. Production of malononitrile. 3,511,869, 5-12-70, Cl. 260-465.2

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Rosinger, Arthur. Stirring devices. 3,494,597, 2-10-70, Cl. 259-103.

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Rosler, Jurgen, to Montblanc-Simplo GmbH. Protective cap for writing instruments. 3,547,552, 12-15-70, Cl. 401-243.

Roslund, Claes Emil, to Asbrink Eiker Aktiebolag. Sweeping machines. 3,510,900, 5-12-70, Cl. 15-82.

Rosmarin, Philip F., to Goodman, H., & Sons, Inc. Hair rollers. 3,516,421, 6-23-70, Cl. 132-33.

Rosner, Irving. Air duct register with anchoring device. 3,504,618, 4-7-70, Cl. 98-108.

Rosner, Leonard A. Brassiere. 3,548,832, 12-22-70, Cl. 128-483.

Rosner, Michael W.; Boileau, Louis D.; and Greipel, Frank J. Ice channel cutter. 3,521,592, 7-21-70, Cl. 114-42.

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Ross, Alexander R.: *See—*
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Ross, Alistair John, to American Cyanamid Company. Resinous blend of a benzoguanamine-formaldehyde resin and a melamine-formaldehyde resin. 3,506,738, 4-14-70, Cl. 260-849.

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Ross, Anthony J. Liquid freezing apparatus. 3,534,563, 10-20-70, Cl. 62-222.

Ross, Bernard W., to Integrity Products Corporation. Skin pressure analyzer. 3,513,698, 5-26-70, Cl. 73-172.

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Ross, Daniel D. Information card. 3,508,356, 4-28-70, Cl. 40-129.

Ross, David S., to Hydro-Clear Corporation. Method of treating liquid waste effluent. 3,516,930, 6-23-70, Cl. 210-32.

Ross, David T., to United States of America, Navy, mesne. Cradle for maintaining a telephone handset in an inverted position. 3,538,267, 11-3-70, Cl. 179-146.

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Ross, Donald R.; and Ross, Donald R., Jr., to U.S. Electric Manufacturing Company. Trolley conductor tension device. 3,543,893, 12-1-70, Cl. 191-40.

Ross, Donald Sutherland; and Muir, William McClements, to National Research Development Corporation. Artificial kidney membrane support means. 3,488,690, 1-6-70, Cl. 210-321.

Ross, Edgar A., to Southern Weaving Company. Woven electrical cable structure and method. 3,495,025, 2-10-70, Cl. 174-70.

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Ross Engineering Co., Inc.: *See—*
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Ross, Erich, to Siemens Aktiengesellschaft. Ferromagnetic core and process for its production. 3,492,236, 1-27-70, Cl. 252-62.59

Ross, Ethel H. Combined hair roller and comb. 3,548,843, 12-22-70, Cl. 132-33.

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Ross, Frank E.: *See—*
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Ross, Frank, to Velsicol Chemical Corporation. Tetrachloroethyl esters of pyridyl carbomic acids, the corresponding mono- and dithiocarbomates and derivatives. 3,547,934, 12-15-70, Cl. 260-295.5

Ross, George H.: *See—*
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Ross, Gerald F., to Sperry Rand Corporation. Microwave phase equalization network. 3,495,190, 2-10-70, Cl. 333-28.

Ross, Henry M. Thermally cured adhesively bonded horse shoe. 3,524,505, 8-18-70, Cl. 168-4.

Ross, Henry M. Fluid-operated, force-limited apparatus for tenderizing meat. 3,535,734, 10-27-70, Cl. 17-25.

Ross, Henry S.; and Wolverton, Marcine P., to Midway Manufacturing Company. Moving target device with extendable target carrier. 3,531,120, 9-29-70, Cl. 273-105.2

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Ross, Irving D., Jr.: *See—*
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Ross, Jack H.; and Spain, Raymond G., to United States of America, Air Force. Sizing system for high modulus fibers and method and apparatus for applying same. 3,501,431, 3-17-70, Cl. 260-28.5

Ross, James T.: *See—*
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Ross, James W., to Orion Research, Incorporated. Cation sensitive electrode and process. 3,497,424, 2-24-70, Cl. 204-1.

Ross, Jerome J., to General Mills, Inc. Recovery of tin from tin bearing solutions. 3,542,507, 11-24-70, Cl. 23-53.

Ross, Jerome J., to General Mills, Inc. Free-flowing form of tocopheryl succinate. 3,551,457, 12-29-70, Cl. 260-345.5

Ross, John A., to Hall Industries, Inc. Insect trap. 3,513,585, 5-26-70, Cl. 43-113.

Ross, John D., to Central Dynamics, Ltd. Adjustable pulse delay circuitry. 3,504,288, 3-31-70, Cl. 328-63.

Ross, John D., to Central Dynamics, Ltd. Television transmitting system utilizing improved means for establishing predetermined phase relationships between various signals within the system. 3,549,793, 12-22-70, Cl. 178-5.4

Ross, John D.; and Akiyama, Kimiharu, to Central Dynamics, Ltd. Video switching circuit. 3,550,087, 12-22-70, Cl. 340-166.

Ross, John D.; and Skrydstrup, Ole, to Central Dynamics, Ltd. Non-additive mixer. 3,535,553, 10-20-70, Cl. 307-243.

Ross, John D.; and Skrydstrup, Ole, to Central Dyanmics, Ltd. Equalizer circuitry incorporating aperture corrector and independent gain adjustment. 3,549,901, 12-22-70, Cl. 307-235.

Ross, John J. Self-releasing anchor. 3,491,712, 1-27-70, Cl. 114-208.

Ross, John J., to General Motors Corporation. Electrical discharge machining apparatus. 3,530,270, 9-22-70, Cl. 219-69.

Ross, John J.: *See—*
Scarpelli, August F.; Ferguson, Millard A.; and Ross, John J.,3,517,154.

Ross, John M., to Du Pont de Nemours, E. I., and Company. Monocyanoethylation of aromatic amines with an aqueous zinc chloride catalyst. 3,496,213, 2-17-70, Cl. 260-465.

Ross, John M., to Sunkist Growers, Inc. Tree fruit harvesting platform. 3,512,609, 5-19-70, Cl. 182-129.

Ross, John William; and Hopkins, Kenneth William, to BP Tanker Company Limited. Buoys. 3,497,888, 3-3-70, Cl. 9-8.

Ross, Joseph Hansbro: *See—*
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Ross, Lester M.; and Grimme, Brooks H., to United States of America, Army. Accelerometer system. 3,508,254, 4-21-70, Cl. 340-347.

Ross, Lyle A.: *See—*
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Ross, Nicholas V., to Ajax Magnethermic Corporation. Apparatus for induction heating of slabs. 3,489,875, 1-13-70, Cl. 219-10.69

Ross, Nicholas V., to Ajax Magnethermic Corporation. Method and apparatus for induction heating of slabs. 3,497,658, 2-24-70, Cl. 219-10.75

Ross, Nicholas V., to Ajax Magnethermic Corporation. Method and apparatus for induction heating of slabs. 3,505,492, 4-7-70, Cl. 219-10.69

Ross, Norman C.; and Mueller, Bernard K., to Witco Chemical Company, Inc. Hydrocarbon urea adduct. 3,502,632, 3-24-70, Cl. 260-96.5

Ross, Oakland K.; Knight, Robert F.; and Rachlinski, Stanley, to Dominion Metalware Industries Limited. Guard rail for hospital bed. 3,506,989, 4-21-70, Cl. 5-331.

Ross Operating Valve Company: *See—*
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Ross, Peter M.; and Tino, Dennis N., to Ford Motor Company. Hinge mechanism for positioning a vehicle deck lid. 3,525,687, 8-25-70, Cl. 296-76.

Ross, Phillip T., to General Motors Corporation. Electrical insulation in lithium-chlorine electrochemical cell. 3,551,206, 12-29-70, Cl. 136-86.

Ross, Ralph D.: *See—*
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Ross, Raymond L.: *See—*
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Ross, Raymond W.: *See—*
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Ross, Richard J.: *See—*
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Ross, Robert H.; Roth, Willard; Larko, Robert C.; and Swartzfager, Walter G., to Sunbeam Equipment Corporation. Aluminum annealing furnace. 3,517,916, 6-30-70, Cl. 263-40.

Ross, Robert N.: *See—*
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Ross, Robert S.: *See—*
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Ross, Roger F., to International Business Machines Corporation. Data processing and printing apparatus. 3,490,004, 1-13-70, Cl. 340-172.5

Ross, Roger J., to Singer Company, The. Thread wiping device. 3,494,316, 2-10-70, Cl. 112-253.

Ross, Samuel, to Ross Electronics Corporation. Headphone apparatus having selectable loudspeaker or earpiece sound reproducer. 3,512,088, 5-12-70, Cl. 325-361.

Ross, Sidney D., to Sprague Electric Company. Capacitor containing epoxidized dielectric spacer paper or film. 3,496,423, 2-17-70, Cl. 317-230.

Ross, Sidney D.; Petersen, Raymond C.; and Finkelstein, Manuel, to Sprague Electric Company. Quaternary ammonium diorganoboron compounds. 3,539,614, 11-10-70, Cl. 260-462.

Ross, Stanley E.: *See—*
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Wolf, Harold W.; and Ross, Stanley E.,3,502,743.

Ross, Stanley L., to Minnesota Mining and Manufacturing Company. Light responsive electrical lamp dimming circuit. 3,500,456, 3-10-70, Cl. 315-149.

Ross, Stanley L.; and Fitzpatrick, Joseph T., to Minnesota Mining and Manufacturing Company. Light responsive electrical lamp dimming means. 3,500,455, 3-10-70, Cl. 315-149.

Ross, Stephen T.; and Zirkle, Charles L., to Smith Kline & French Laboratories. Substituted anilino benzyl alcohols. 3,513,199, 5-19-70, Cl. 260-571.

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Ross, William H. Spliced conveyor belt and method of making same. 3,546,054, 12-8-70, Cl. 161-38.

Ross, William J.; and Watson, Stanley G. Spectrophotometer cells. 3,506,367, 4-14-70, Cl. 356-246.

Rossander, Bror Ludvig Eugen Rossander. Method for surface hardening polygonal steel rods and product treated according to the method. 3,547,715, 12-15-70, Cl. 148-146.

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Rosscup, Robert J.; Zletz, Alex; and Schaap, Luke A., to Standard Oil Company. Process for the production of alcohols. 3,548,013, 12-15-70, Cl. 260-641.

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Rossello, Anthony. Artificial fish lure. 3,507,070, 4-21-70, Cl. 43-42.06

Rosselot, Clifford L. Electrically operated means for marking the edges of a strip in an open field or country. 3,531,024, 9-29-70, Cl. 222-178.

Rossen, Hans Andreas. Cheese moulding apparatus. 3,514,857, 6-2-70, Cl. 31-44.

Rossen, Jack L., to Lever Brothers Company. Fluid shortening. 3,528,823, 9-15-70, Cl. 99-118.

Rosser, Charles M.: *See—*
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Rosser, Gerald E. Automatic hand held snare. 3,540,769, 11-17-70, Cl. 294-19.

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Moret, Michel A.; and Rosset, Claude R.,3,501,836.
Moret, Michel A.; and Rosset, Claude R.,3,502,915.
Moret, Michel A.; and Rosset, Claude R.,3,541,485.

Rossetti, Carlo. Method of polymerizing monomeric material into cast polymer sheets and the apparatus for the casting of said polymeric sheets. 3,551,541, 12-29-70, Cl. 264-102.

Rossetti, Charles. Cylinder lock. 3,548,621, 12-22-70, Cl. 70-370.

Rossetti, Lino. Safety lifebelt. 3,501,789, 3-24-70, Cl. 9-319.

Rossetti, Marta: *See—*
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Mangini, Angelo; Tundo, Antonio; Bonini, Bianca Flavia; and Rossetti, Marta,3,527,747.

Rosshirt, Hermann: *See—*
Madsen, Elmer W.; and Rosshirt, Hermann,3,535,604.

Rossi, Adriano, to Adriano & F. Lil Rossi S.p.A. Overhead transporter for oriented goods. 3,501,022, 3-17-70, Cl. 212-128.

Rossi, Alberto, to Ciba Corporation. Lower alkyl-2-0-(β-carboxypropionyl)-tri substituted-D-glucofuranosides. 3,494,913, 2-10-70, Cl. 260-210.

Rossi, Alberto, to Ciba Corporation. Tetrahydroazacycloalkano[1,2-α]pyridazines. 3,503,980, 3-31-70, Cl. 260-268.

Rossi, Alberto, to Ciba Corporation. 6-Desoxy-D-furanoside ethers. 3,530,113, 9-22-70, Cl. 260-210.

Rossi, Alberto, to Ciba Corporation. D-Glucofuranoside ether-esters. 3,538,077, 11-3-70, Cl. 260-210.

Rossi, Alberto, to Ciba Corporation. Furanoside ether esters. 3,542,761, 11-24-70, Cl. 260-210.

Rossi, Alberto; and Eichenberger, Kurt, to Ciba Corporation. 4-Unsubstituted-5-amino- or 5-acylamino- pyrazolo[3,4-b]pyridines. 3,542,793, 11-24-70, Cl. 260-294.8

Rossi, Anthony. Feeding and delivery means for bottles and the like in decorating machines. 3,503,329, 3-31-70, Cl. 101-40.

Rossi, Chester. Sealed portable electric light. 3,526,765, 9-1-70, Cl. 240-10.6

Rossi, Eugene F., to Allis-Chalmers Manufacturing Company. Feed distributor for crusher. 3,506,203, 4-14-70, Cl. 241-202.

Rossi, Eugene F., to Allis-Chalmers Manufacturing Company. Feed conveying and distributing apparatus. 3,530,973, 9-29-70, Cl. 198-96.

Rossi, Gianfranco: *See—*
Huob, Konrad; Giraudi, Giorgio; and Rossi, Gianfranco,3,546,836.

Rossi, Giuseppe. Automatic tearing device for continuous coupling machines. 3,508,693, 4-28-70, Cl. 225-96.5

Rossi, Guido, to Generay-Generale Radiologica S.p.A. Tiltable X-ray table supporting an X-ray tube and detector for displacement and rotation in two directions relative to the table. 3,500,045, 3-10-70, Cl. 250-57.

Rossi, Guido, to Generay-Generale Radiologica S.p.A. X-ray table, having a removable and replaceable patient-supporting board. 3,504,386, 4-7-70, Cl. 5-81.

Rossi, Irving, to Concast, Incorporated. Ladle stopper. 3,511,471, 5-12-70, Cl. 251-144.

Rossi, Irving, to Concast Incorporated. Continuous-casting method. 3,542,115, 11-24-70, Cl. 164-82.

Rossi, Irving; Huber, Horst; and Fastert, Herbert, to Concast Incorporated. Dummy bar handling mechanism. 3,542,118, 11-24-70, Cl. 164-274.

Rossi, Lionello. Vehicle for the transport of a rotating mixer, or the like, provided with continuous conveyor. 3,521,767, 7-28-70, Cl. 214-83.26

Rossi, Onni I., to Oy, Tahka AB. Method for forming a bundle of sawn or planed boards or planks, sorted as to length. 3,521,770, 7-28-70, Cl. 214-152.

Rossi, Robert R., to Arrow Safety Device Company. Lamp housing. 3,514,010, 5-26-70, Cl. 220-40.

Rossie, Alfred. Slidable closure. 3,541,731, 11-24-70, Cl. 49-425.

Rossier, Denis. Snowfall alarm. 3,530,453, 9-22-70, Cl. 340-234.

Rossini, Ralph; and Bogovican, Dragan, to Essex International, Inc. Foot dimmer switch. 3,502,833, 3-24-70, Cl. 200-86.5

Rossitto, Conrad: *See—*
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Rossler, Hubert: *See—*
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Rossler, Kurt. Device for automatically sewing the toes of seamless stockings. 3,513,792, 5-26-70, Cl. 112-121.15
Rossman, Donald, to Elco Corporation. Test connector for integrated circuit module. 3,551,878, 12-29-70, Cl. 339-75.
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Rossmy, Gerd; Koerner, Gotz; and Wassermeyer, Jakob, to Goldschmidt, Th., A.-G. Polyalkyleneoxide-polysiloxane block copolymers and process for preparing same. 3,526,651, 9-1-70, Cl. 260-448.8
Rossmy, Gerd; Koerner, Gotz; and Wassermeyer, Jakob, to Goldschmidt, Th., A.-G. Process of preparing polyalkylene-polysiloxane block copolymers. 3,532,732, 10-6-70, Cl. 260-448.2
Rossmy, Gerd; and Wassermeyer, Jakob, said Rossmy assor. to Th. Goldschmidt A.G. Branched organopolysiloxanes containing terminal hydroxy groups. 3,488,372, 1-6-70, Cl. 260-448.2
Rossner, Elfriede; Rossner, Ludwig; and Rossner, Wolfgang, deceased0 (by Rossner, Elisabeth; legal guardian of heirs). Sputtering device for depositing wear resistant coatings on work surfaces. 3,546,091, 12-8-70, Cl. 204-298.
Rossner, Elisabeth: *See—*
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Rossner, Wolfgang: *See—*
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Rosso, John B., to Combustion Engineering, Inc. Gating circuit. 3,544,909, 12-1-70, Cl. 328-147.
Rossoff, Arthur L., to General Instrument Corporation. Laser modulating system. 3,551,848, 12-29-70, Cl. 332-7.51
Rossomakho, Yakov Vulfovich: *See—*
Bykhovsky, David Grigorievich; Medvedev, Alexandr Yakovlevich; Rossomakho, Yakov Vulfovich; and Koss, Valery Alexandrovich,3,546,422.
Rossow, LeRoy J. Handle device. 3,523,322, 8-11-70, Cl. 16-111.
Rossow, Vernon J., to United States of America, National Aeronautics and Space Administration. Apparatus for measuring conductivity and velocity of plasma utilizing a plurality of sensing coils positioned in the plasma. 3,517,302, 6-23-70, Cl. 324-34.
Rosswag, Walter. Device for automatically releasing a catch for dog training. 3,505,979, 4-14-70, Cl. 119-110.
Rost, Heinz; Buchmann, Otto; Hesselmann, Karl-Heinz; and Hesselmann, Wilhelm, deceased0 (by Hesselmann, Charlotte0Hesselmann, Harald0Hesselmann, Karl-Heinz0Hesselmann, Theodor0Hesselmann, Hans-Jurgen0Hesselmann, Herbert; heirs), to Planatolwerk W. Hesselmann Chemische- u. Apparatus for the binding of stacked sheets. 3,531,358, 9-29-70, Cl. 156-475.
Rosta, William N., to VLM Corporation, The. Rotary wing aircraft. 3,507,461, 4-21-70, Cl. 244-17.23
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Rostas, Francois, to Compagnie Generale d'Electricite. Method of and apparatus for measuring the density of a plasma or transparent semiconductor. 3,545,867, 12-8-70, Cl. 356-114.
Roster, Theodore J.: *See—*
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Rostoker, David, to Corning Glass Works. Method of making pressed foam glassy pellet bodies. 3,505,089, 4-7-70, Cl. 106-40.
Rostotsky, Boleslav Kazimirovich: *See—*
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Rosvold, Warren C., to Raytheon Company. Contact for semiconductor device. 3,492,546, 1-27-70, Cl. 317-234.
Rosvold, Warren C., to Raytheon Company. Airgap isolated semiconductor device. 3,493,820, 2-3-70, Cl. 317-234.
Roszelle, Wayne O.: *See—*
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Roth, Etienne, to Commissariat a l'Energie Atomique. Process for removing protium and tritium from heavy water. 3,505,017, 4-7-70, Cl. 23-210.
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Roth, Hilde. Cigarette and the like ash receiver. 3,523,640, 8-11-70, Cl. 232-43.2
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Roth, Shirley H., to American Standard Inc. Optical pH indicator comprising aromatic aminoazo dye and inert polymer containing carbonyl radicals. 3,544,484, 12-1-70, Cl. 252-408.
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Roth, Walter, to Xerox Corporation. Negative corona device with means for producing a repelling electrostatic field. 3,541,329, 11-17-70, Cl. 250-49.5
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Rouberol, Jean-Michel, to Compagnie d'Applications Mecaniques a l'Electronique au Cinema et a l'Atomistique (C.A.M.E.C.A.). Ion-electron image converter for use with ion microanalyzers. 3,551,671, 12-29-70, Cl. 250-49.5
Roubin, Marc Pierre; Paris, Jacques Maurice; and Paris, Rene Antoine, to Centre National de la Recherche Scientifique. Process for obtaining simple and mixed carbonitrides and oxycarbonitrides of transition metals and new metallic carbonitrides and oxycarbonitrides containing such metals. 3,492,100, 1-27-70, Cl. 23-315.
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Routh, Claude C.; and Geren, Keith E., to United States of America, Navy. Protection circuit for power transistor. 3,522,480, 8-4-70, Cl. 317-20.
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Roveti, Denes. Rapidly operating solid state electronic switch with parallel tripping path. 3,535,592, 10-20-70, Cl. 317-33.
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Rubinfeld, Joseph; and Ouw, Willem Bian Gwan, to Colgate-Palmolive Company. Heat-treatment of sulfonated olefin products. 3,506,580, 4-14-70, Cl. 252-138.
Rubino, Andrew M.: *See—*
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Jones, John L.; and Rubino, Andrew M.,3,523,130.
Rubino, Andrew M., to Armour Pharmaceutical Company. Codried aluminum hydroxide-aluminum chelate antacid. 3,499,963, 3-10-70, Cl. 424-157.
Rubino, Andrew M., to Armour Pharmaceutical Company. Combinations of aluminum-coordinating therapeutic adjuvants and aluminum chelates and process for making and using the same. 3,506,761, 4-14-70, Cl. 424-230.
Rubino, Robert A., 51% to Mars Research & Design Corporation. Vending machine with fast cooking means. 3,534,676, 10-20-70, Cl. 99-355.
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Rubinstein, Richard B., to General Instrument Corporation. FET dynamic data inverter. 3,517,210, 6-23-70, Cl. 307-205.
Rubinstein, Richard B.; Cohen, Leo; and Tetik, Attila, to General Instrument Corporation. Clock generator. 3,536,936, 10-27-70, Cl. 307-269.
Rubinstein, William C.: *See—*
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Rubner, Tibor, to Westinghouse Electric Corporation. Voltage acceptor circuit and overvoltage undervoltage detector for use therein. 3,551,746, 12-29-70, Cl. 317-26.

Rubricius, Jeanette L. Blood oxygenator. 3,526,481, 9-1-70, Cl. 23-258.5

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Ruby, Philip Randolph: *See—*
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Ruch, David E.; and Cole, Gerald D., to General Motors Corporation. Pulsed current regulator. 3,493,844, 2-3-70, Cl. 323-4.

Ruch, David E.: *See—*
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Ruch, Rodney R.: *See—*
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Ruchinsky, Vitally Rafael-Abovich: *See—*
Olevsky, Viktor Markovich; and Ruchinsky, Vitally Rafael-Abovich,3,547,593.

Ruchlis, Hyman, to Harcourt, Brace & World, Inc. Electron shell model. 3,521,380, 7-21-70, Cl. 35-18.

Ruchser, Erich; and Trampler, Erich, to Industrie-Werke Karlsruhe Aktiengesellschaft. Actuating device on sewing machines for a binding apparatus. 3,538,868, 11-10-70, Cl. 112-139.

Rucinski, Michael Elmer; and Berg, Paul A., to Buckbee-Mears Company. Photoprinting vacuum fixture for a strip or metal band. 3,507,594, 4-21-70, Cl. 355-91.

Ruckborn, Gunther, to Linde Aktiengesellschaft. Process and apparatus for heat exchange of streams in the low temperature separation of gas mixtures. 3,492,828, 2-3-70, Cl. 62-13.

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Ruckert, Hans, to Kalle Aktiengesellschaft. Reprographic copying composition and reprographic copying material prepared therewith. 3,539,559, 11-10-70, Cl. 260-240.
Steppan, Hartmut; Munder, Johannes; Ruckert, Hans; Messward, Gunter; and Luders, Walter,3,497,353.

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Ruckman, Fredrick R. Conveyor apparatus. 3,542,184, 11-24-70, Cl. 198-33.

Ruckstuhl, Konrad, to Fibrelite Corporation. Hammermill for grinding fibrous materials. 3,490,705, 1-20-70, Cl. 241-186.

Ruda, Raymond J., to Bagcraft Corporation of America. Disposable litter bag. 3,510,052, 5-5-70, Cl. 229-62.

Ruda, Raymond J., to Bagcraft Corporation of America. Method of making a ventilated plastic bag. 3,546,327, 12-8-70, Cl. 264-156.

Rudd, Michael J., to British Aircraft Corporation Limited. Measurement of fluid or surface velocities. 3,548,655, 12-22-70, Cl. 73-194.

Rudd, Milo Ol, to Univis, Inc. Lens blank blocking. 3,491,489, 1-27-70, Cl. 51-277.

Rudd, Milo O.; and Catron, William M., to Univis, Inc. Two-piece ring block for lens blanks. 3,512,310, 5-19-70, Cl. 51-277.

Rudd, Milo O.; and Woronoff, Alexander M. Apparatus for processing of ophthalmic lens. 3,507,076, 4-21-70, Cl. 51-277.

Rudd, Wallace C., to American Machine and Foundry Company. Electron beam forge welding. 3,539,760, 11-10-70, Cl. 219-121.

Rudd, Wallace C., to American Machine & Foundry Company. Forge welding. 3,539,761, 11-10-70, Cl. 219-121.

Rudd, Wallace C., to American Machine & Foundry Company. Welding of low thermal mass parts. 3,541,296, 11-17-70, Cl. 219-117.

Rudd, Wallace C.; and Morris, Jack, to American Machine & Foundry Company. Welding of seams by high frequency heating current while forcing welding metal into the seam. 3,497,662, 2-24-70, Cl. 219-106.

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Rudder, Walter H.; and Rubright, Roy K., to Goodyear Tire & Rubber Company, The. Molding apparatus and methods. 3,506,755, 4-14-70, Cl. 264-297.

Ruddick, Maurice, to Burnett & Rolfe Limited. Tipplers for turning over beer kegs and like containers. 3,536,206, 10-27-70, Cl. 214-1.

Ruddock, William F.; and Di Pasquantonio, Ernest A., to Pitney-Bowes, Inc. Form set and method of making same. 3,505,501, 4-7-70, Cl. 235-61.12

Rudenko, Mikhail Pavlovich: *See—*
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Rudert, Wolfgang; and Wahnschaffe, Jurgen, to Daimler-Benz Aktiengesellschaft. Exhaust gas line serving for the feed of exhaust gas turbochargers. 3,524,315, 8-18-70, Cl. 60-29.

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Rudin, Walter; and Shannon, Robert A., said Rudin assor to Bloom Engineering Company, Inc., and said Shannon assor to United States Steel Corporation. Apparatus for removing slag and scale from soaking pit furnaces. 3,521,869, 7-28-70, Cl. 263-40.

Rudlaff, John Louis, to Ajem Laboratories, Inc. Conveyor. 3,545,600, 12-8-70, Cl. 198-221.

Rudle, Manfred, to Herbiger Ventilwerke Aktiengesellschaft. Fluidic element. 3,533,428, 10-13-70, Cl. 137-81.5

Rudlin, Craig R. Combination pump and oxygenator. 3,515,640, 6-2-70, Cl. 195-1.8

Rudloff, Bernard. Method of manufacture of reinforced unwoven felts. 3,515,609, 6-2-70, Cl. 156-62.8

Rudman, Frederick R., to Gardner-Denver Company. Feed mechanism for rock drill hose guide. 3,500,941, 3-17-70, Cl. 173-160.

Rudman, Frederick R., to Gardner-Denver Company. Variable stroke percussion tool. 3,547,006, 12-15-70, Cl. 91-277.

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Rudnick, Donald P. Snow disposal apparatus. 3,540,430, 11-17-70, Cl. 126-343.5

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Rudo, Edward; Gerstein, Sidney; and Smith, Robert G. Semiautomatic diverter for telephone calls. 3,506,792, 4-14-70, Cl. 179-42.

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Rudolph, Dietmar; and Mieslinger, Winfried, to Gebruder Buhler Nachfolger GmbH. Arrangement for maintaining the speed of a D.C. motor constant. 3,544,872, 12-1-70, Cl. 318-328.

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Rudolph, Luther D., to Research Corporation. Universal logic devices. 3,500,061, 3-10-70, Cl. 307-210.

Rudolph, Ralph G., to United States Steel Corporation. Glow discharge suppressing insulator. 3,529,201, 9-15-70, Cl. 313-268.

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Rudolph Rome R.; Strutz, Carl, Jr.; and Strutz, Frank C., to Strutz, Carl, & Co., Inc. Apparatus for trimming and decorating plastic workpieces. 3,540,371, 11-17-70, Cl. 101-38.

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Rueckl, Roger L., to United States Steel Corporation. Method and apparatus for treating slag. 3,523,775, 8-11-70, Cl. 65-19.

Rueckwald, Ronald Frederick, to Xerox Corporation. Electroscopic toner powder dispenser. 3,538,887, 11-10-70, Cl. 118-602.

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Ruehrwein, Robert A., to Monsanto Company. Photovoltaic cell with a graded energy gap. 3,496,024, 2-17-70, Cl. 136-89.

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Ruete, Robert; Aldighieri, Rudolph P.; and Silva, Frank A., to America Esna Corporation, mesne. Electrical connector for high voltage electrical systems. 3,539,972, 11-10-70, Cl. 339-111.

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Rugaber, Robert H.; and Yurgealitis, Eugene W., to Xerox Corporation. Communication system. 3,507,980, 4-21-70, Cl. 178-5.1

Ruge, Arthur C., to BLH Electronics, Inc. Self-heating compensation for bonded filament strain gage transducers. 3,498,118, 3-3-70, Cl. 73-88.5

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Ruggero, Santo L. Inflatable intranasal tampon. 3,516,407, 6-23-70, Cl. 128-325.

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Ruggles, Kay L., to American Standard Inc. Tank and method for manufacture thereof. 3,536,228, 10-27-70, Cl. 220-71.

Ruggles, Kay L.; Gunnerson, Dale B.; and Clark, Howard S., to American Standard Inc., mesne. Apparatus for bonnet molding of sinks. 3,496,612, 2-24-70, Cl. 18-39.

Ruhala, Joseph, to General Motors Corporation. Lash removal device for a control wire system. 3,546,962, 12-15-70, Cl. 74-501.

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Ruhnau, Joachim, to Kunstoff-Verfahrenstechnik Isernhagen HB GmbH & Co. KG. Machine for coating plate or shell-shaped building elements. 3,515,376, 6-2-70, Cl. 259-153.

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Rukas, Vasily Alexandrovich; Kienovsky, Eduard Stanislavovich; and Minalga, Rimgaudas-Pranas Pranovich. Screw extruder for reprocessing thermoplastics. 3,518,721, 7-7-70, Cl. 18-12.

Rulapaugh, Harry P.: *See—*
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Rulison, Richard N., to Celanese Corporation. Production of carbon yarns. 3,508,874, 4-28-70, Cl. 23-209.1

Rulison, Richard N.; and Riggs, John P., to Celanese Corporation. Production of resilient, high denier, flame-resistant filaments. 3,526,693, 9-1-70, Cl. 264-210.

Rullman, George B. Method and apparatus for operating a single line conveyor. 3,505,072, 4-7-70, Cl. 99-1.

Rulseh, Roger D.; and Koch, Claude V., to American Machine & Foundry Company. Optional automatically variable switch operating means. 3,497,645, 2-24-70, Cl. 200-38.

Rulseh, Roger D.; and Koch, Claude V., to American Machine & Foundry Company. Switch contact arm mounting means. 3,501,608, 3-17-70, Cl. 200-166.

Rum, Klaus: *See—*
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Rumbaugh, Hugh M. Apparatus for cleaning dishware. 3,498,304, 3-3-70, Cl. 134-58.

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Rumble, Dale H., to International Business Machines Corporation. Two-dimensional data compression. 3,521,241, 7-21-70, Cl. 340-172.5

Rumble, Robert C.: *See—*
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Rumbold, Sidney G., to Aerojet-General Corporation. Ablative injectors. 3,545,203, 12-8-70, Cl. 60-39.74

Rummel, Edward W., to Western Reserve Electronics Inc. Drawing constant current from a line. 3,508,139, 4-21-70, Cl. 323-4.

Rummel, Roman, to Von Roll AG. Tubular heat exchange assembly. 3,533,467, 10-13-70, Cl. 165-165.

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Rumminger, James E.: *See—*
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Rumold, Gerhard: *See—*
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Rump, Bjorn S.; Hammond, Robert H.; and Meyer, Charles H., Jr., to Gulf Energy & Environmental Systems, Inc. Process for forming superconductive materials. 3,549,416, 12-22-70, Cl. 117-227.

Rumpf, Hans; and Leschonski, Kurt, said Leschonski assor. to said Rumpf. Classification method and apparatus. 3,520,407, 7-14-70, Cl. 209-139.

Rumpf, Hans; Leschonski, Kurt; and Weilbacher, Manfred, said Leschonski and Weilbacher assor to said Rumpf. Method and apparatus for classifying by gravity a granular material mixture. 3,506,119, 4-14-70, Cl. 209-139.

Rumpf, Paul; Thuillier, Jean-Eugene; and Thuillier, Germaine, born Nachmias. Pharmaceutical composition containing phenylbutazone derivative. 3,491,190, 1-20-70, Cl. 424-273.

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Rumsey, Rollin Douglas, to Houdaille Industries, Inc. Direct drive wheel mount. 3,493,067, 2-3-70, Cl. 180-55.

Rumsey, Rollin Douglas, to Houdaille Industries, Inc. Series tuned viscous dampers. 3,495,475, 2-17-70, Cl. 74-574.

Rumsey, Rollin Douglas, to Houdaille Industries Inc. Wheel driving hydraulic motor circuits. 3,506,081, 4-14-70, Cl. 180-44.

Rumsey, Rollin Douglas, to Houdaille Industries, Inc. Long travel rotary actuator/damper. 3,528,345, 9-15-70, Cl. 92-120.

Rumsey, Rollin Douglas, to Houdaille Industries, Inc. Hydraulic buffer. 3,534,871, 10-20-70, Cl. 213-43.

Rumsey, Rollin Douglas; Kamman, Gordon W.; and Hughson, Robert I., to Houdaille Industries, Inc. Fifth wheel viscous damper construction. 3,517,946, 6-30-70, Cl. 280-432.

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Runde, William G.; and Bromley, Arthur J., to McGraw-Edison Company. Linear scale instrument with variable speed tape drive. 3,512,499, 5-19-70, Cl. 116-129.

Rundel, Albert A. Auto carrier. 3,521,799, 7-28-70, Cl. 224-42.07

Rundell, Clark A.; Kwedar, John A.; and Duecker, Heyman C., to Grace, W. R., & Co. Process for the preparation of synthetic mullite. 3,533,738, 10-13-70, Cl. 23-110.

Rundell, Theodore W., to Tecumseh Products Company. Hermetic motor-compressor unit. 3,544,240, 12-1-70, Cl. 417-416.

Rundle, Victor A., to Chevron Research Company. Coated wooden concrete mold and a method for making same. 3,497,375, 2-24-70, Cl. 117-5.1

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Runge, Heinert; and Wieck, Karl, to Bremer Vulkan Schiffbau und Maschinenfabrik. Apparatus for microfinishing crankpins of crankshafts. 3,548,547, 12-22-70, Cl. 51-67.

Runge, Jurgen; and Kache, Reinhard, to VEB Chemische Werke Buna. Process for preparing cyclobutane-1,2-dinitrile from acrylonitrile. 3,491,006, 1-20-70, Cl. 204-158.

Runge, Jurgen; and Nelles, Wally, to VEB Chemische Werke Buna. Stabilized acrylonitriles polymer. 3,520,847, 7-21-70, Cl. 260-45.8

Runge, Wallace F.; and Frump, John A., to Commercial Solvents Corporation. Production of vinyl oxazoline esters. 3,535,332, 10-20-70, Cl. 260-307.

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Runo, William R.; Henderson, Henry F., Jr.; and Barabas, Henry. Packaging machine. 3,538,676, 11-10-70, Cl. 53-182.

Runton, Leslie A. Valve for high pressure pipe lines. 3,490,484, 1-20-70, Cl. 137-219.

Runton, Leslie A., to Stevens, J. P., & Co., Inc. Producing stretch fabric through use of chemical modifiers and a plurality of tension zones. 3,528,763, 9-15-70, Cl. 8-125.

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Ruocchio, Albert C.: *See—*
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Ruof, Edgar J., to Goodyear Tire & Rubber Company, The. Converter circuit for wheel speed transducer. 3,543,110, 11-24-70, Cl. 324-70.

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Ruoff, Carl E.; and Winter, Edward F., to International Business Machines Corporation. Integrated photodiode array. 3,551,761, 12-29-70, Cl. 317-235.

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Ruona, Arthur Ernest. Apparatus for reducing the resistance of a ship hull. 3,534,699, 10-20-70, Cl. 114-67.

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Ruoss, Walter; and Jenny, Hans. Electronic control for the movement of large objects, particularly movable blackboards. 3,525,028, 8-18-70, Cl. 318-446.

Rupert, John G., to Honeywell Inc. Supervisory apparatus. 3,525,263, 8-25-70, Cl. 73-419.

Rupert, Robert J., to Bucyrus-Erie Company. Wrist action mechanism for a material handling implement on a power loader. 3,506,145, 4-14-70, Cl. 214-138.

Rupert, Samuel J., to Hoover Ball and Bearing Company. Method and apparatus for trim finishing blow molded containers. 3,506,171, 4-14-70, Cl. 225-94.

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Rupley, Don G., to Heath Company. Automatic gain control system for television receivers. 3,511,930, 5-12-70, Cl. 178-7.3

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Rupp, Hans-Dieter; Meyer, Gerhard; and Magerlein, Helmut, to Glanzstaff AG. Production of dimethyl sulfide from trithione and methanol. 3,530,191, 9-22-70, Cl. 260-609.

Rupp, Hans-Dieter; Meyer, Gerhard; and Magerlein, Helmut, to Glanzstoff AG. Catalytic production of dimethyl sulfide from trithiane. 3,542,881, 11-24-70, Cl. 260-609.

Rupp, Hans-Dieter; Meyer, Gerhard; and Magerlein, Helmut, to Glanzetoff AG. Process for the conversion of trithiane into carbon disulfide. 3,551,103, 12-29-70, Cl. 23-206.

Rupp, Hans-Dieter; Siggel, Erhard; and Meyer, Gerhard, to Glanzstoff AG. Process for the purification of trithiane. 3,544,592, 12-1-70, Cl. 260-327.

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Ruppa, Aaron Arvo. Fishing gear. 3,499,241, 3-10-70, Cl. 43-19.2

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Rupper, Wilhelm. Method of manufacturing a printed circuit. 3,514,356, 5-26-70, Cl. 156-298.

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Rupprecht, Heinrich; and Popp, Lorenz, to Bast Hefe- und Spirituswerke GmbH. Preparation of stable concentrates of baking flours containing yeasts. 3,510,312, 5-5-70, Cl. 99-94.

Rupprecht, Joachim; de Bucs, Eugen Szabo; and Oesterhelt, Gerhard, to Siemens Aktiengesellschaft. Thermogenerator with germanium-silicon semiconductors. 3,523,832, 8-11-70, Cl. 136-205.

Rupprecht, Kenneth J.; and Richards, Albert J., to Stevens, J. P., & Co., Inc. Thread feeding device and process. 3,542,084, 11-24-70, Cl. 139-116.

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Ruschig, Heinrich; Schmitt, Karl; Lebenich, Hans; and Hartfelder, Gunther, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Alkyl-and cycloalkyl-amino-propanol- and cyclopentenyl-phenol ethers. 3,551,493, 12-29-70, Cl. 260-570.7

Ruscitti, Tomaso. Head for filling containers, such as aerosol containers, with a predetermined amount of a fluid. 3,532,139, 10-6-70, Cl. 141-20.

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Rushing, Raymond G., to General Electric Company. Apparatus including circuitry for effecting coil press-back in inductive devices. 3,534,460, 10-20-70, Cl. 29-205.

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Rushton, Brian M., to Petrolite Corporation. Process of inhibiting corrosion. 3,514,250, 5-26-70, Cl. 21-2.5
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Ruspoli, Edmondo. Device for practising golf strokes. 3,510,136, 5-5-70, Cl. 273-185.
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Russell, Alexander; and Coates, Leslie James, to National Research Development Corporation. Positional displacement transducer arrangements. 3,504,246, 3-31-70, Cl. 318-18.
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Russell, Carl D., to Engineering Automotive Sciences Inc., mesne. Rearview mirror adaptor for angling the mirror by remote control. 3,519,336, 7-7-70, Cl. 350-289.
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Russell, Fred D.; and Brooks, George Clyde. Rooftop carrier. 3,514,023, 5-26-70, Cl. 224-42.1
Russell, Fred E.; and Russell, Charles E., to Safetematic, Inc. Probe device having a pair of aligned tubular sections for detecting electric leakage. 3,510,766, 5-5-70, Cl. 324-72.5
Russell, Fred J.; and Armstrong, Richard L., to Norris Industries, Inc., mesne. Lock with metal shim between plastic retractor slide and plastic retractor case. 3,487,667, 1-6-70, Cl. 70-464.
Russell, Fred J.; Armstrong, Richard L.; and Falk, Harold W., to Norris Industries, Inc. Adjustable strike. 3,506,293, 4-14-70, Cl. 292-341.19
Russell, Fred J.; Armstrong, Richard L.; and Rodriguez, Humberto A., to Norris Industries, Inc. Retaining plate for a door or drawer cam lock. 3,503,233, 3-31-70, Cl. 70-370.
Russell-French, Harry M., to Budd Company, The. Sealing apparatus for aircraft catapults. 3,504,872, 4-7-70, Cl. 244-63.
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Russell, James Langley, to British Aircraft Corporation Limited. Hydraulically adjustable rolling mill having a transducer unaffected by piston deformation. 3,546,908, 12-15-70, Cl. 72-21.
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Russell, James T., to Battelle Development Corporation, The. Analog to digital to optical photographic recording and playback system. 3,501,586, 3-17-70, Cl. 178-6.7
Russell, John D. Method for conveying material. 3,533,660, 10-13-70, Cl. 299-18.
Russell, John D. Strain gage assembly. 3,543,568, 12-1-70, Cl. 73-88.5
Russell, John Edward, to British Titan Products Company Limited. Filter. 3,513,975, 5-26-70, Cl. 210-77.
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Russell, Joseph L., to Halcon International, Inc. Oxidation of hydrocarbon in the presence of boric acid. 3,497,544, 2-24-70, Cl. 260-462.
Russell, Kenneth F., to Brogdex Company. Apparatus and method for filling boxes with a preselected quantity of discrete articles. 3,492,779, 2-3-70, Cl. 53-59.
Russell, Linus E., to Peters and Russell, Inc. Marine bumper. 3,540,403, 11-17-70, Cl. 114-219.
Russell, Linus E., to Peters and Russell, Inc. Pump. 3,545,897, 12-8-70, Cl. 417-542.
Russell, Lisle G., to Westinghouse Electric Corporation. Apparatus heating a structure using the lighting load. 3,507,320, 4-21-70, Cl. 165-26.
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Ruthel, Walter W.; and Emery, Alvin T., to Hooker Chemical Corporation. Cathode structure for electrolytic diaphragm cell. 3,493,487, 2-3-70, Cl. 204-284.

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Rye, Grover W.; and Dague, Michael F., to Goodyear Tire & Rubber Company, The. Reduced noise level tire. 3,548,912, 12-22-70, Cl. 152-362.

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Salomon, Georges P. J. Boot attachment for skis. 3,507,510, 4-21-70, Cl. 280-11.35
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Saltiel, Joseph Pepo, to Wimbledon Organization Limited. Adjustable garter for supporting a stocking. 3,492,675, 2-3-70, Cl. 2-240.
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Salzmann, Gerhard Martin, to Colgate-Palmolive Company. Liquid dentifrice containing powdered abrasive. 3,506,757, 4-14-70, Cl. 424-52.
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Salzwedel, Kenneth E., to TRW Inc. Apparatus for coating electrical components by rotating the same in a molten film. 3,487,812, 1-6-70, Cl. 118-232.
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Samejima, Hirotoshi; Furuya, Akira; Aoki, Yoshiatsu; and Teranishi, Hiroshi, to Kyowa Hakko Kogyo Kabushiki Kaisha. Process of recovering acidic amino acid. 3,505,399, 4-7-70, Cl. 260-527.
Samejima, Hirotoshi; Teranishi, Hiroshi; Deguchi, Takashi; Kumabe, Kiyoshi; Hayashi, Teruo; and Serizawa, Masami, to Kyowa Hakko Kogyo Co., Ltd., (Kyowa Hakko Kogyo Kabushiki Kaisha. Purification of adenosine triphosphate. 3,493,558, 2-3-70, Cl. 260-211.5
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Sames, Delbert W., to General Aniline & Film Corporation. Winding device for use with reproduction machines. 3,498,559, 3-3-70, Cl. 242-67.
Sames, Societe Anonyme de Machines Electrostatiques: *See—*
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Samhammer, Clair A., to Samsonite Corporation. Luggage cases. 3,497,041, 2-24-70, Cl. 190-18.
Samiran, David. Power assisted pogo stick. 3,495,671, 2-17-70, Cl. 180-8.
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Kim, Charles W.; and Samluk, Stanley D.,3,495,752.
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Sammarco, Peter; and Sanderson Robert W., III, to International Harvester Company. Reversible auger extension. 3,547,292, 12-15-70, Cl. 214-520.
Sammis, John C., to Microdot, Inc. Fluorescent lamp starting and operating circuit with a pulse starter. 3,525,901, 8-25-70, Cl. 315-105.
Samo, Harvey W., to Margon Corporation. Magnetically responsive doll eye assembly. 3,531,893, 10-6-70, Cl. 46-237.
Samo, Harvey W., to Margon Corporation. Side-to-side moving doll eye. 3,550,315, 12-29-70, Cl. 46-167.
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Samour, Carlos M., to Kendall Company, The. Copolymers of monoesters of maleic, itaconic and citraconic acids with esters of acrylic or methacrylic and adhesives made therefrom. 3,509,111, 4-28-70, Cl. 260-78.
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Sampson, Sidney F., to Bell Telephone Laboratories, Incorporated. Signal generator with asynchronous start. 3,502,991, 3-24-70, Cl. 328-130.
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Samsel, Gerard; Werner, Paul; Karman, Julien; and Ferring, Ernest, to European Atomic Energy Community (Euratom). Movable caisson. 3,489,298, 1-13-70, Cl. 214-17.

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Samuels, Abraham M.; and Shapiro, Eugene B., to Chicago Specialty Manufacturing Co. Spray device for showers, faucets, and the like. 3,524,591, 8-18-70, Cl. 239-428.5

Samuels, Carl E. Ball projecting device having two rotatable wheels. 3,538,900, 11-10-70, Cl. 124-1.

Samuels, Ronald L., to TRW Inc. Radiant energy driven orientation system. 3,515,594, 6-2-70, Cl. 136-89.

Samuels, Samuel: *See—*
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Samuels, Stanley J.; and Samuels, Samuel. Cushioned toilet seat and method for making same. 3,513,050, 5-19-70, Cl. 156-196.

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Samuelson, Leon C.; Davenport, Richard L.; and Crowell, Philip L., to Johnson, S. C., & Son, Inc. Variable spray apparatus. 3,542,254, 11-24-70, Cl. 222-402.19

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Sanabria, Ulises A.; and Corbett, Robert J., to National Energy Corporation. Generation of constant frequency electric power at variable speeds. 3,504,271, 3-31-70, Cl. 322-61.

Sanada, Sukeyoshi. Hair clips. 3,515,153, 6-2-70, Cl. 132-48.

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Sanborn, Alfred W.: *See—*
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Sanborn, Gordon E., deceased (by Sanborn, Dorothy L., executrix). Coin controlled vending apparatus with platform descending for article ejection. 3,530,969, 9-29-70, Cl. 194-63.

Sanborn, William Eugene; and Lindsley, John Francis, to American Cyanamid Company. Catalyst for oxidation of naphthalane to phthalic acid anhydride. 3,507,810, 4-21-70, Cl. 252-430.

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Sanchez, Pascual Jose M. Oscoz. Tables with collapsible tabletops. 3,520,259, 7-14-70, Cl. 108-79.

Sanchez, Rafael. Apparatus for manufacturing shower caps. 3,505,149, 4-7-70, Cl. 156-383.

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Sancioni, Aurelio. Motor vehicle bumper with trailer connection. 3,547,469, 12-15-70, Cl. 280-483.

Sand, Robert H., to Elsters. Alignable wall bracket. 3,523,393, 8-11-70, Cl. 52-36.

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Sandahl, George E.; and Bartelmas, Edward G., to Radiant Corporation. Screen mounting for projected pictures. 3,494,405, 2-10-70, Cl. 160-24.

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Sandbank, Carl Peter; and Strain, Robert Joseph, to International Standard Electric Corporation. Optical device for responding to difference frequency of incident light beams. 3,530,299, 9-22-70, Cl. 250-211.

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Sandborn, Edmund; and Azzopardi, Alfred, to S.K.S. Ltd. Stencil cutters. 3,531,863, 10-6-70, Cl. 30-301.

Sandborn, Edmund; and Azzopardi, Alfred, to S.K.S. Ltd. Press for cutting rubber stencils. 3,532,020, 10-6-70, Cl. 83-658.

Sandbrook, Dean E., to United States Steel Corporation. Apparatus for and method of conrolling the density of raw materials flowing through a rotary kiln. 3,519,815, 7-7-70, Cl. 250-43.5

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Sander, Benjamin. Swivel hook. 3,548,909, 12-22-70, Cl. 152-241.

Sander, Bruno; Becke, Friedrich; Hagen, Helmuth; Pommer, Ernst-Heinrich; and Wittmann, Otto, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Binders for the production of processed wood materials comprising cyclic acetals. 3,546,147, 12-8-70, Cl. 260-17.2

Sander, Bruno; Fuchs, Friedrich; Becke, Friedrich; and Kohlhaupt, Reinhold, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. β-Carbamyl-β-hydroxyethylamines. 3,538,158, 11-3-70, Cl. 260-561.

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Sander, Lester E. Slitter cutting disk assembly transfer device. 3,503,293, 3-31-70, Cl. 83-481.

Sander, Ronald C.; and Hruby, Ronald J., to United States of America, National Aeronautics and Space Administration. Transient video signal recording with expanded playback. 3,549,799, 12-22-70, Cl. 178-6.6

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Sander, Wolfgang, to Konus-Kessel Gesellschaft fur Warmetechnik m.b.H. & Co. K.G. Forced-circulation boiler system with separate boiler and furnace. 3,507,256, 4-21-70, Cl. 122-20.

Sanders, Arthur Joseph, to British Nylon Spinners Limited. Needled fabrics and process for making them. 3,506,529, 4-14-70, Cl. 161-67.

Sanders, Arthur Joseph, to British Nylon Spinners Limited. Tufted fabrics and methods of making them. 3,511,740, 5-12-70, Cl. 161-67.

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Blitz, Daniel; and Richmond, Martin R., 3,548,383.
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Sanders, Burton H., to Ionics, Incorporated. Regeneration of an enclosed atmosphere. 3,502,429, 3-24-70, Cl. 23-4.

Sanders, David E., to Electronic Communications, Inc. High speed divide-by-two dual transistor circuit. 3,536,933, 10-27-70, Cl. 307-220.

Sanders, Dewey C., Jr., to Goodyear Tire & Rubber Company, The. Dryer. 3,521,375, 7-21-70, Cl. 34-44.

Sanders, Donald P., to Texas Instruments, Incorporated. Process for making ohmic contact to planar germanium semiconductor devices. 3,523,038, 8-4-70, Cl. 117-212.

Sanders, Ellsworth E.; and Woodrich, Kenneth H., to Polyform, Inc. Apparatus for forming hollow plastic article. 3,539,416, 11-10-70, Cl. 156-499.

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Sanders, Fred E. Electric beverage heater. 3,488,473, 1-6-70, Cl. 219-281.

Sanders, Fred E. Electric syrup warmer. 3,514,579, 5-26-70, Cl. 219-430.

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Sanders, Frederick W., to Mead Corporation, The. Printing plates and method for manufcturing same. 3,507,647, 4-21-70, Cl. 96-1.5

Sanders, Grady H., to Deering Milliken Research Corporation. Method and apparatus for winding thread. 3,526,368, 9-1-70, Cl. 242-18.

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Sanders, Herbert L.; and Braunwarth, John B., to Varney Chemical Division of Northern Petrochemical Company. Sulfopropylated amphoteric compounds and method for making same. 3,505,396, 4-7-70, Cl. 260-513.

Sanders, James W.; and Maguire, James T., to Electronic Associates, Inc. Tire testing system. 3,490,277, 1-20-70, Cl. 73-146.

Sanders, John H.; and Hurley, Rupert B., to Dow Chemical Company, The. Method for manufacture of surface modified thermoplastic fibers and filaments. 3,492,142, 1-27-70, Cl. 117-9.

Sanders, John M., to Kinkead Industries Incorporated. Trimmer for foam-backed carpeting or the like. 3,535,786, 10-27-70, Cl. 30-293.

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Sanders, Norman Thomas, to Wilkinson Sword Limited. Foil for dry shavers. 3,510,942, 5-12-70, Cl. 30-34.2

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Sanders, Robert G., to Litton Systems, Inc. Method of and apparatus for indicating the sensitivity of microorganisms to antibiotics. 3,509,026, 4-28-70, Cl. 195-103.5

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Santomieri, Louis S., to Deseret Pharmaceutical Company, Inc. Valve unit for an intravenous liquid feeding apparatus. 3,517,909, 6-30-70, Cl. 251-342.

Santona, Aldo. Reversible tie construction. 3,506,978, 4-21-70, Cl. 2-150.

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Sarah, Thomas F., to Shakespeare Company, mesne. Anti-backlash brake means for fishing reels. 3,549,103, 12-22-70, Cl. 242-84.5

Sarah, Thomas F., to Shakespear of Arkansas, Inc., mesne. Bail assembly for spinning reels. 3,550,874, 12-29-70, Cl. 242-84.2

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Sarati, Luigi, to Societa Italiana Telecomunicazioni Siemens S.p.A. Automatic protection switching system for communication channels. 3,518,549, 6-30-70, Cl. 325-56.

Sarazen, John C.; Pierini, John M.; and Larsen, Reidar G., to Texas Instruments, Incorporated. Connector for use between an integrated-circuit and a circuit panel. 3,517,376, 6-23-70, Cl. 339-192.
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Sardessai, Kashinath S.; and Mullier, Michel E., to Mobil Oil Corporation. Amorphous terpolyesters having high impact strength. 3,547,888, 12-15-70, Cl. 260-75.
Sare, Carl R., to Sly, W. W., Manufacturing Company. Dust collector. 3,490,207, 1-20-70, Cl. 55-294.
Sare, Clyde W., to Crucible Steel Company of America. Fold down camper. 3,490,807, 1-20-70, Cl. 296-23.
Sarem, Amir M., to Union Oil Company of California. Gelled jet fuel. 3,507,635, 4-21-70, Cl. 44-7.
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Sargent, Raymond W., to Simmonds Precision Products Inc. Pressure sensing device. 3,496,775, 2-24-70, Cl. 73-384.
Sargent, Raymond W., to Simmonds Precisions Products, Inc. Linear displacement transducer. 3,500,146, 3-10-70, Cl. 317-246.
Sargent, Raymond W., to Simmonds Precision Products, Inc. Electroformed inner tube for tank unit. 3,512,252, 5-19-70, Cl. 29-601.
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Sark, Werner, to Aktiengesellschaft Brown, Boveri & Cie. Shaft couplings for mechanically and electrically connecting the rotor shaft of a turbogenerator with a separate shaft. 3,524,090, 8-11-70, Cl. 310-71.
Sarkar, Asim Kmar, to Hickson & Welch Limited. Coumarin derivatives having optical whitening properties. 3,525,753, 8-25-70, Cl. 260-343.2
Sarkar, Asim Kumar, to Hickson & Welch Limited. 7-Mercepto-coumarins. 3,547,952, 12-15-70, Cl. 260-343.2
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Sarnezki, Herbert; and Schmidt, Werner, to Siemens Aktiengesellschaft. Demountable support for a traveling wave tube and its field magnet. 3,538,367, 11-3-70, Cl. 313-49.
Sarno, Richard L., to Automatic Sprinkler Corporation of America. Scaffold structure. 3,509,966, 5-5-70, Cl. 182-119.
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Sarto, Jorma O., to Chrysler Corporation. Engine exhaust recirculation. 3,542,003, 11-24-70, Cl. 123-119.
Sarto, Jorma O.; and Hunter, William A., to Chrysler Corporation. Evaporative emission control system. 3,517,654, 6-30-70, Cl. 123-136.
Sarto, Jorma O.; and Moeller, Everett G., to Chrysler Corporation. Preheating inlet air during engine idling. 3,500,806, 3-17-70, Cl. 123-119.
Sartomer Resins, Inc.: *See—*
Cornell, John A., 3,534,010.
Cornell, John A., 3,534,122.

Sartore, Annita: *See—*
Sartore, Laurence; and Sartore, Annita,3,529,401.
Sartore, Laurence; and Sartore, Annita. Elastic netting loader. 3,529,401, 9-22-70, Cl. 53-197.
Sartori, Guido: *See—*
Natta, Giulio; Mazzanti, Giorgio; Valvassori, Alberto; and Sartori, Guido,3,505,302.
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Valvassori, Alberto; Camell, Nazzareno; and Sartori, Guido,3,527,739.
Sartori, Mario F., to Du Pont de Nemours, E. I., and Company. Cationic mono azo dyes for anionic fibers. 3,532,683, 10-6-70, Cl. 260-207.
Sartoris, Mariola: *See—*
Falcone, Luigi; Parisi, Agostino; and Sartoris, Mariola,3,547,986.
Sartorius-Werke, G.m.b.H.: *See—*
Knothe, Erich Emil; Billin, Eckhard; and Malcher, Franz Josef, 3,550,703.
Sandstede, Gerd; and Robens, Erich Maria, 3,516,429.
Sartorius-Werke, G.m.b.H. (und vormals Gottinger Prazisionswaagenfabrik G.m.b.H.): *See—*
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Sartorius-Werke und vormals Gottinger Prazisionswaagenfabrik G.m.b.H. Aktiengesellschaft, Firma: *See—*
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Saruta, Yoshikazu; and Ohta, Kisaku, to Nissan Jidosha Kabushiki Kaisha. Device for driving poppet valves of an engine. 3,532,080, 10-6-70, Cl. 123-90.19
Sarvay, John Thomas; and Dallen, John A., to Standard Products Company, The. Lock strip inserting tool. 3,550,242, 12-29-70, Cl. 29-235.
Sarvay, John T., to Standard Products Company, The. Receiver for spline-type gaskets. 3,524,290, 8-18-70, Cl. 52-98.
Sarver, Forrest D.: *See—*
Haner, Lambert; and Sarver, Forrest D.,3,534,261.
Sarver, James F., to General Electric Company. Zinc orthosilicate phosphor of improved maintenance and its manufacture. 3,535,267, 10-20-70, Cl. 252-301.6
Sarver, James F.: *See—*
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Sasagawa, Ryusuke, to Furukawa Denchi Kabushiki Kaisha. Battery with electrolyte passageway between cells. 3,532,557, 10-6-70, Cl. 136-170.
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Sasaki, Juntaro; Wada, Shigeru; Iwata, Tadao; and Oi, Hidesaburo, to Mitsui Petrochemical Industries, Ltd. Process for preparing highly crystalline polyolefins and polymerization catalysts therefor. 3,536,686, 10-27-70, Cl. 260-88.2
Sasaki, Keigo: *See—*
Ohashi, Susumu; and Sasaki, Keigo,3,504,567.
Sasaki, Kuniya, to Sumitomo Metal Mining Company Limited. Mechanism for pulling out suspension bars in an electrolytic refinery for metals. 3,499,207, 3-10-70, Cl. 29-241.
Sasaki, Masanori: *See—*
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Sasaki, Minoru; and Morita, Masayoshi. Magnetic tape cartridge. 3,529,788, 9-22-70, Cl. 242-199.
Sasaki, Rentaro, to Oki Electric Industry Co., Ltd. Spacing and ribbon feed mechanism for typewriters. 3,532,204, 10-6-70, Cl. 197-48.
Sasaki, Shinichi. Microwave apparatus for determining moisture content of hygroscopic webs, especially during manufacture. 3,551,806, 12-29-70, Cl. 324-58.5
Sasaki, Shunroku: *See—*
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Sasaki, Tetsuo, to Ikegami Die & Mold Mfg., Co., Ltd. Apparatus for rolling tapes. 3,488,013, 1-6-70, Cl. 242-55.21
Sasaki, Toshio: *See—*
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Sasaki, Yuji; and Okami, Yoshiro, to Zaidan Hojin Biseibutsu Kagaku Kenkyu Kai. Temperature gradient shaking incubator. 3,535,208, 10-20-70, Cl. 195-140.
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Sasamoto, Takeshi, to Nippon Electric Company, Limited. Multilayer electric contacts. 3,518,390, 6-30-70, Cl. 200-166.
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Sasayama, Takao, to Hitachi, Ltd. Ignition system for internal combustion engine. 3,529,587, 9-22-70, Cl. 123-148.
Sasky, Sallyann Z., to Sarong, Inc. Differential stretch girdle. 3,507,286, 4-21-70, Cl. 128-539.
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Sass, Frank J., to FMC Corporation. Cartoning machine and method. 3,509,681, 5-5-70, Cl. 53-35.
Sass, Lothar E. H.: *See—*
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Sass, Samuel; Witten, Benjamin; and Davis, Paul, to United States of America, Army. Method of making a incendiary formulation containing white phosphorus. 3,551,531, 12-29-70, Cl. 264-3.
Sass, William H., to International Business Machines Corporation. Graphic scanning system. 3,505,509, 4-7-70, Cl. 235-154.
Sassa, Nagamasa, to Kanegafuchi Kagaku Kogyo Kabushiki Kaisha. Extruder for producing porous shaped resinous articles. 3,499,186, 3-10-70, Cl. 18-12.
Sassak, Frank, to Bend-Rite Incorporated. Tube bending machine. 3,505,852, 4-14-70, Cl. 72-321.
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Dickore, Karlfried; Sasse, Klaus; Eue, Ludwig; and Hack, Helmuth,3,492,333.
Sasse, Klaus; and Grewe, Ferdinand, to Farbenfabriken Bayer Aktiengesellschaft. Fungicidal 1-acyl-benzimidazoline compositions and methods of use. 3,499,085, 3-3-70, Cl. 424-273.
Siegel, Edgar; and Sasse, Klaus,3,515,713.
Siegel, Edgar; and Sasse, Klaus,3,522,246.
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Sassenberg, Richard. Liquid treating means for image carrying film on projection apparatus. 3,510,901, 5-12-70, Cl. 15-100.
Sasser, Martin V., Jr. Balance and exercising board. 3,488,049, 1-6-70, Cl. 272-1.
Sassler, Marvin L., to International Telephone and Telegraph Corporation. Ultra-sensitive receiver. 3,530,383, 9-22-70, Cl. 325-346.
Sassmannshausen, Werner: *See—*
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Satake, Kimihiko; Shiraki, Hirmoitsu; and Ozawa, Masayoshi, to Nippon Electric Company Limited. Light intensity amplifying device utilizing a semiconductor electron-sensitive variable resistance layer. 3,499,157, 3-3-70, Cl. 250-213.

Satake, Toshihiko. Circulating-grain drying apparatus. 3,514,861, 6-2-70, Cl. 34-33.

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Satchell, Fred E.; Retford, David T.; and Barnes, Robert S., to Brunswick Corporation. Golf ball. 3,490,770, 1-20-70, Cl. 273-231.

Sather, Eugene, to Bell & Howell Company. Scanning apparatus having pulse generating synchronizer to indicate position of scanner. 3,531,649, 9-29-70, Cl. 250-219.

Sather, Robert O.: *See—*
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Satkin, David M.; Helvie, Gene B.; and Tillotson, Charles J., to Architectural Partitions. Wall structure. 3,550,338, 12-29-70, Cl. 52-241.

Sato, Akihiko, to Nippon Kogaku K.K. Damping means for viewing mirror. 3,507,199, 4-21-70, Cl. 95-42.

Sato, Akihiro: *See—*
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Iwai, Katsuyuki; Fukatsu, Motonori; and Sato, Fujio,3,495,033.
Iwai, Katsuyuki; Sato, Fujio; and Fukatsu, Motonori,3,520,992.

Sato, Fujio; Fukatsu, Motonori; and Iwai, Katsuyuki, to Akai Electric Company Limited. Magnetic recording system with a disabled bias oscillator during the vertical synchronization interval. 3,504,116, 3-31-70, Cl. 178-6.6

Sato, Fusao, to Nippon Gakki Seizo Kabushiki Kaisha. Ligature for a mouthpiece with a reed in a musical instrument. 3,521,517, 7-21-70, Cl. 84-383.

Sato, Hachiro: *See—*
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Sato, Hisao: *See—*
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Sato, Hisao. Leather disintegrating apparatus. 3,515,358, 6-2-70, Cl. 241-280.

Sato, Hisao: *See—*
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Sato, Hisayuki; Koga, Mitsuo; Aoki, Takeo; Hayashida, Kazunari; and Kohno, Ikuhiro, to Hodogaya Chemical Co., Ltd. Process for producing non-foaming urethane-type polymers. 3,505,275, 4-7-70, Cl. 260-37.

Sato, Jiro: *See—*
Wakamatsu, Hachiro; Tatsumi, Susumu; Sato, Seiichi; Sato, Jiro; and Nomura, Mikio,3,546,269.

Sato, Katsuo: *See—*
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Irie, Toshiaki; Sato, Katsuo; and Nanko, Yoshiyuki,3,530,343.
Tsuji, Shigeru; Hayashi, Kazutami; Kadowaki, Kouichi; and Sato, Katsuo,3,539,319.

Sato, Kazuhisa. Molecular structure models. 3,510,962, 5-12-70, Cl. 35-18.

Sato, Kenji, to Kurashiki Rayon Co., Ltd. Process for the preparation of saponified homopolymers of vinyl acetate and copolymers and vinyl acetate. 3,510,464, 5-5-70, Cl. 260-87.3

Sato, Kenji: *See—*
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Sato Kiko Kabushiki Kaisha: *See—*
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Sato, Kimio: *See—*
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Sato Kirko Kabushiki Kaisha: *See—*
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Sato, Kiyoshi: *See—*
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Sato, Kozaburo: *See—*
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Sato, Kunio: *See—*
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Sato, Masaaki, to Olympus Optical Co., Ltd. Ultraminiature tape recorder with components detachable from the main body. 3,521,010, 7-21-70, Cl. 179-100.2

Sato, Masaki: *See—*
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Sato, Masamichi: *See—*
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Sato, Masamichi, to Fuji Photo Film Co., Ltd. Electrostatic latent image developing device. 3,537,427, 11-3-70, Cl. 118-637.

Sato, Masamichi, to Xerox Corporation. Method of filtering. 3,544,458, 12-1-70, Cl. 210-65.

Sato, Masamichi, to Fuji Photo Film Co., Ltd. Developing a latent electrostatic image with ferromagnetic carrier and toner by employing a varying magnetic field. 3,545,968, 12-8-70, Cl. 96-1.

Sato, Masamichi; and Honjo, Satoru, to Fuji Photo Film Co., Ltd. Method of charging a photoconductive insulating layer. 3,546,545, 12-8-70, Cl. 317-262.
Kawakami, Tsuneta; Ikeno, Hitoshi; and Sato, Masami,3,518,464.

Sato, Masataro. Bracket for scaffolding. 3,493,208, 2-3-70, Cl. 248-235.

Sato, Mikio: *See—*
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Ishikawa, Hidehiko; Sato, Mikio; and Yoshioka, Masaaki,3,519,428.

Sato, Mikio; and Tawara, Kinya, to Maruzen Oil Company Limited. Oxidative dehydrogenation of non-aromatic cyclic hydrocarbon having at least one unsaturated bond in side chain. 3,502,736, 3-24-70, Cl. 260-669.

Sato, Naotake: *See—*
Uzuki, Teruo; Sato, Naotake; and Akashi, Takekazu,3,527,776.

Sato, Risaburo; and Yokokawa, Senji. Branching filter comprising a band-pass filter and a band-rejection filter. 3,504,317, 3-31-70, Cl. 333-6.

Sato, Ryuichi; and Agata, Akihiko, to Nikkiso Co., Ltd. Canned motor pump. 3,542,494, 11-24-70, Cl. 417-321.

Sato, Sadao, to Kakumaru Industry Company Limited. Underwater arc welding process. 3,521,022, 7-21-70, Cl. 219-72.

Sato, Seiichi: *See—*
Wakamatsu, Hachiro; Tatsumi, Susumu; Sato, Seiichi; Sato, Jiro; and Nomura, Mikio,3,546,269.

Sato, Sennosuke; Honda, Toshio; and Ito, Hisanori, to Japan Atomic Energy Research Institute. Method for determining a heat treatment temperature for carbon and graphite. 3,503,248, 3-31-70, Cl. 73-15.

Sato, Shigeo: *See—*
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Sato, Shigetake: *See—*
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Sato, Shui: *See—*
Ishikawa, Hidehiko; Ozaki, Shuzo; and Sato, Shui,3,526,507.

Sato, Suguru, to Nippon Denso Kabushi Kaisha. Semiconductor rectifier assembly for combination with vehicle-type generators. 3,539,850, 11-10-70, Cl. 310-68.

Sato, Suguru, to Nippon Denso Company Limited. Alternating-current generator with open-ended housing. 3,548,226, 12-15-70, Cl. 310-68.

Sato, Susumu: *See—*
Sudo, Kyohei; and Sato, Susumu,3,535,346.

Sato, Tadashige; and Tsutsumi, Shinya, to Matsushita Electric Industrial Co., Ltd. Rotary toaster. 3,515,054, 6-2-70, Cl. 99-335.

Sato, Tadashi: *See—*
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Sato, Takeki: *See—*
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Sato, Teruo: *See—*
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Sato, Tetsuya, to Kabushiki Kaisha Teikoku Demki Seisakusho. Device for lubricating a bearing for use in a canned motor pump and an agitator. 3,513,942, 5-26-70, Cl. 184-6.

Sato, Toru: *See—*
Murao, Taiichi; Hara, Masakatsu; Sato, Toru; Katsuyama, Shigeo; and Sasaki, Toshio,3,544,670.

Sato, Tsutomu: *See—*
Odawara, Daisaku; Sugimoto, Hisao; and Sato, Tsutomu,3,534,716.

Sato, Unzo. Method of preparing a synthetic resin foam. 3,488,299, 1-6-70, Cl. 260-2.5

Sato, Yasuhiro: *See—*
Yatabe, Hiroshi; Takei, Takaji; Oshima, Keiji; Hikita, Masatoshi; Kanda, Shigeru; Sato, Yasuhiro; Nkayama, Takeshi; and Nakata, Tetsuya,3,550,269.

Sato, Yasuhito: *See—*
Yagi, Shizuo; Nakagawa, Kazuo; Ishizuya, Akira; Yamazaki, Shuichi; Sato, Yasuhito; and Sekiguchi, Masaharu,3,547,088.

Sato, Yasuta. Movable upstanding two-wheeled toy. 3,492,758, 2-3-70, Cl. 46-50.

Sato, Yasuta. Movable toy having detachable auxiliary driving wheel means. 3,517,458, 6-30-70, Cl. 46-243.

Sato, Yo; Nagashima, Kiyoji; Murata, Yoshio; Makino, Kazunosuke; Matsushima, Eiichi; and Izumihara, Sozo, to Sato Kiko Kabushiki Kaisha. Portable, one-hand-operable labeling machine. 3,551,251, 12-29-70, Cl. 156-384.

Sato, Yo; and Nagashima, Seiji, to Sato Kirko Kabushiki Kaisha. Device for printing numerical figures and other characters on labels and for pasting these labels consecutively onto articles and merchandise. 3,522,131, 7-28-70, Cl. 156-384.

Sato, Yoshikazu: *See—*
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Sato, Yoshio: *See—*
Soma, Nobuo; Nakazawa, Junichi; Sato, Yoshio; Kuwabara, Yoshimi; and Ishikawa, Hidehiko,3,506,451.
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Sato, Yoshitaka: *See—*
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Sato, Yoshiteru. Dial lock. 3,527,070, 9-8-70, Cl. 70-133.

Sato, Yoshito: *See—*
Fukushima, Takaaki; Takizawa, Haruki; Hori, Kikuo; Sato, Yoshito; and Mizumori, Haruhiko,3,539,680.

Sato, Yosuke; and Kishi, Noboru, to Mitsubishi Chemical Industries Limited. Disperse anthraquinone dyestuffs. 3,538,129, 11-3-70, Cl. 260-376.

Sato, Yutakam, to Nippon Kokuyu Tetsudo (Known in English as Japanese National Railways). Vibration-suppressing composite rail for railways. 3,525,472, 8-25-70, Cl. 238-151.

Satoh, Daisuke; and Minesita, Tetuo, to Shionogi & Co., Ltd. Process for preparing steroid-acylates of a cardiac glycoside and products thereof. 3,514,441, 5-26-70, Cl. 260-210.5

Satoh, Daisuke; and Minesita, Tetuo, to Shinonogi & Co., Ltd. Carbonates of cardenolide tridigitoxosides and ester derivatives thereof. 3,531,462, 9-29-70, Cl. 260-210.5

Satoh, Fusao, to Nippon Gakki Seizo Kabushiki Kaisha. Cleaning rod for woodwind musical instruments. 3,488,790, 1-13-70, Cl. 15-118.

Satoh, Hirokazu: *See—*
Yamaguchi, Taro; and Satoh, Hirokazu,3,506,395.

Sator, Karl; and Gill, Robert F., to Tekform Products Co., mesne. Hermetically sealed enclosure. 3,539,704, 11-10-70, Cl. 174-52.

Sator, Karl: *See—*
Leitner, Robert E.; and Sator, Karl,3,505,724.

Satterfield, Edward L.: *See—*
Aliotta, Joseph; and Satterfield, Edward L.,3,488,172.

Satterthwaite, James Glenn; and Macy, James B., Jr. Peripheral journal propeller drive. 3,487,805, 1-6-70, Cl. 115-42.

Satterwhite & Bagwell: *See—*
Satterwhite, Charles R., 3,496,968.

Satterwhite, Charles R., to Satterwhite & Bagwell. Wire crimping device for asphalt paving. 3,496,968, 2-24-70, Cl. 140-105.

Satterwhite, Fred B., to Klinger Manufacturing Company, Limited, The, mesne. Method of crimping and fibrillating film. 3,491,419, 1-27-70, Cl. 28-72.

Satterwhite, Fred B., to Klinger Manufacturing Company Limited, The, mesne. Yarn processing method and apparatus. 3,501,819, 3-24-70, Cl. 28-1.3

Satterwhite, Fred B., to Klinger Manufacturing Company, Limited, The, mesne. Yarn and method and apparatus for producing the same. 3,503,104, 3-31-70, Cl. 28-1.

Satterwhite, William A.; and Carter, Jack M., to United States Steel Corporation. Production of sodium silicofluoride from wet process phosphoric acid. 3,528,786, 9-15-70, Cl. 23-302.

Satterwhite, William A.: *See—*
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Smaltz, Roy G.; Satterwhite, William A.; and Roberts, Paul R.,3,498,746.
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Sattlegger, Hans: *See—*
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Sattlegger, Johann W., to Texas Instruments, Incorporated. Spatial man-machine communications system. 3,539,981, 11-10-70, Cl. 340-15.5

Sattler Mfg., Corporation: *See—*
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Satzinger, Gerhard, to Warner-Lambert Pharmaceutical Company. Pharmaceutical composition containing 3-(2- fluorophenyl)-1,2,3-benzotriazin-4-one and a method of producing anoretic activity with such. 3,492,406, 1-27-70, Cl. 424-249.

Satzinger, Gerhard, to Warner-Lambert Pharmaceutical Company. Process for the preparation of benzyl-(ortho- tertiary-aminoalkoxy) benzyl thioethers. 3,542,789, 11-24-70, Cl. 260-293.4

Satzinger, Gerhard, to Warner-Lambert Pharmaceutical Company. Process for the preparation of benzyl-(ortho- tertiary-aminoalkoxy) benzyl ethers. 3,542,792, 11-24-70, Cl. 260-294.7

Satzler, Ronald L.: *See—*
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Saucy, Gabriel: *See—*
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Saucy, Gabriel, to Givaudan Corporation, mesne. 3,-7-Dimethyl-3,7-dihydroxy-oct-1-yne and esters thereof. 3,519,681, 7-7-70, Cl. 260-488.

Saucy, Gabriel, to Hoffmann-La Roche Inc. Stereospecific hydrogenation of benzopyrans. 3,544,598, 12-1-70, Cl. 260-340.9

Saucy, Gabriel; Smith, Franklin Artell; and Sternbach, Leo Henryk, to Hoffmann-La Roche Inc. Intermediates for preparing certain 1,4- benzodiazepin-2-(1H)-ones. 3,499,027, 3-3-70, Cl. 260-471.
Marbet, Roman; and Saucy, Gabriel,3,493,619.
Rosenberger, Michael; and Saucy, Gabriel,3,544,600.

Sauder, Donald R., to Tappan Company, The. Electric range surface element assembly. 3,506,805, 4-14-70, Cl. 219-451.

Sauer, Edgar; and Hahn, Johann, to Zeiss Ikon Aktiengesellschaft. Photographic camera. 3,491,666, 1-27-70, Cl. 95-11.

Sauer, Gale E., to National Gypsum Company. Fireproofing of steel columns. 3,516,213, 6-23-70, Cl. 52-725.

Sauer, Gale E.; and Austin, Arthur C., to National Gypsum Company. Method of forming fissured acoustical panel. 3,513,009, 5-19-70, Cl. 117-10.

Sauer, George E., to General Electric Company. Interlaced disk winding with improved impulse voltage gradient. 3,528,046, 9-8-70, Cl. 336-70.

Sauer, Hans, 1/2 to Matsushita Electric Works, Ltd. Electromagnetic multi-contact relay. 3,544,930, 12-1-70, Cl. 335-154.

Sauer, Hans; Nishida, Yukinobu; and Nishii, Takeshi, said Nishida and said Nishii assor. to Matsushita Electric Works, Ltd. Snap switch. 3,523,167, 8-4-70, Cl. 200-67.

Sauer, Henry. Strap-on type tire chains. 3,545,517, 12-8-70, Cl. 152-233.

Sauer, Leo Peter; and Lindholm, Frank J., to Signode Corporation. Cotton compress strapping system. 3,541,948, 11-24-70, Cl. 100-3.

Sauer, Louis E., to Centenary Central, Inc. Reinforced freewheeling resilient cover for rotary die-cutting anvil. 3,522,754, 8-4-70, Cl. 83-659.

Sauer, Louis E. Multiple anvil structure for rotary die cutting. 3,522,762, 8-4-70, Cl. 93-58.4

Sauer, Louis E.; and Miller, Orville C., to Centenary Central, Inc. Mechanism for reproducing layouts of modified dimensions. 3,498,716, 3-3-70, Cl. 355-84.

Sauer, Louis E.; and Miller, Orville C., to Centenary Central, Inc. Rotary die sawing and drilling machine. 3,507,179, 4-21-70, Cl. 83-564.

Sauer, Paul, to Burger Eisenwerke Aktiengesellschaft. Apparatus for thawing deep-frozen food. 3,501,620, 3-17-70, Cl. 219-400.

Sauer, Paul, to Burger Eisenwerke AG. Food-treatment apparatus with washing means. 3,550,576, 12-29-70, Cl. 126-21.

Sauer, Richard W.: *See—*
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Sauer, Roman F.; Gossel, Felix; and Rollfinke, Gerhard, to Otto Sauer Achsenfabrik, Firma. Twin axle bogie. 3,522,956, 8-4-70, Cl. 280-81.

Sauer, Werner, to Carl Braun Camerawerk. Slide projectors. 3,535,034, 10-20-70, Cl. 353-105.

Sauerbrey, Horst M., to Langenstein & Schemann Aktiengesellschaft. Hammer with hydraulic coupling. 3,525,220, 8-25-70, Cl. 60-51.

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Sauey, Edwin C.: *See—*
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Saul, Benno B. Security devices. 3,518,655, 6-30-70, Cl. 340-274.

Saul, Francis Kenneth, Sr.; and Adams, Edwin A., to Delhi Metal Products Limited. Director system for broadband antennas. 3,500,425, 3-10-70, Cl. 343-817.

Saul, Sanford, to Triax Company, The. Over height load protection for automatic storage system. 3,519,149, 7-7-70, Cl. 214-16.4

Saulmon, James E. Ignition distributor. 3,501,600, 3-17-70, Cl. 200-19.

Saumsiegle, Robert W., to Schjeldahl, G. T., Company. Method of joining plastic. 3,498,868, 3-3-70, Cl. 156-322.

Saunders, Alan J., to Pratt & Whitney Inc. Machine tool with tool changer. 3,526,033, 9-1-70, Cl. 29-568.

Saunders, Charles A. Archery bow and leaf spring arrow rest. 3,494,347, 2-10-70, Cl. 124-24.

Saunders, Charles A. Arm-braced slingshot. 3,511,221, 5-12-70, Cl. 124-20.

Saunders, Charles A. Archery reel with line-restraining means. 3,522,916, 8-4-70, Cl. 242-99.

Saunders, Cloyde E.; and Demske, Harry L., to Bendix Corporation, The. Collapsible steering column. 3,491,614, 1-27-70, Cl. 74-493.

Saunders, David Edward John: *See—*
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Saunders, Frank L.; Rieke, James K.; and Twining, James W., to Dow Chemical Company, The. Metal-polymer compositions. 3,491,056, 1-20-70, Cl. 260-41.

Saunders, Fred Q. Electric steam generator. 3,488,474, 1-6-70, Cl. 219-284.

Saunders, Harry L., to Smith Kline & French Laboratories. Method of producing anti-adrenal activity with diarylalkylamines. 3,510,560, 5-5-70, Cl. 424-324.

Saunders, James H., to Mobay Chemical Company. Polyurethane plastics. 3,505,250, 4-7-70, Cl. 260-2.5

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Saunders, Orson V.; and Betz, Milton G., to General Motors Corporation. Refrigerator door trim and panel mounting strip. 3,525,190, 8-25-70, Cl. 52-624.

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Saunders, Robert M. Roller assembly for sliding doors. 3,526,995, 9-8-70, Cl. 49-420.

Saunders, Roger I., to Sanders Associates, Inc. Bathythermographic probe for uniform descent rate. 3,511,092, 5-12-70, Cl. 73-344.

Saunders Valve Company Limited: *See—*
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Saunders, William Arthur Joseph, to Watford Electric & Manufacturing Company Limited. Electromagnetic contactors. 3,491,316, 1-20-70, Cl. 335-193.

Saunders, William T., to National Steel Corporation. Deep drawing method and apparatus. 3,494,169, 2-10-70, Cl. 72-350.

Saunders, William T., to National Steel Corporation. Scoreline formation and repair. 3,507,418, 4-21-70, Cl. 220-54.

Saunders, William T., to National Steel Corporation. Sheet metal container. 3,525,455, 8-25-70, Cl. 220-67.

Saunderson & Costin Limited: *See—*
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Saunderson, Edward John Hardress, to Saunderson & Costin Limited. Cutting machine having work holding means and cutting tool stop means. 3,489,061, 1-13-70, Cl. 90-11.

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Paul, Maynard C.; Sauter, Gerald F.; and Oberg, Paul E.,3,546,579.

Sauter, Karl; Schindler, Gottfried; and Haerter, Alex, to Lurva AG. Pressure-tight blast valve. 3,489,073, 1-13-70, Cl. 98-119.

Sauter, Walter A., to American Nucleonics Corporation. RF signal controller. 3,550,041, 12-22-70, Cl. 333-7.

Sautereau, Lucien Emile Francois. Drawing-board. 3,543,282, 11-24-70, Cl. 108-144.

Sauthoff, Friedrich; Huber, Johann; and Falke, Erich, to Knorr-Bremse GmbH. Braking valve for railway vehicle air brakes. 3,497,270, 2-24-70, Cl. 303-89.

Sautier, Pierre J., to Engins Matra. Rocket-bomb magazine. 3,500,717, 3-17-70, Cl. 89-1.817

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Sauvageot, Adrian Burt; and Partridge, James M., to Titanium Metals Corporation of America. Method for producing titanium strip. 3,492,172, 1-27-70, Cl. 148-11.5

Sauveniere, Raymond; and Doquire, Gilbert, to S.A. Glaverbel. Method of modifying the light reflecting properties of glass and glass produced thereby. 3,490,982, 1-20-70, Cl. 161-1.

Savage, Albert B.; and Glomski, Ronald L., to Dow Chemical Company, The. Surface treatment of finely-divided water- soluble polymers. 3,489,719, 1-13-70, Cl. 260-73.

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Savage, Conwell, to Westinghouse Electric Corporation. Vehicle system having lost-motion control device. 3,507,361, 4-21-70, Cl. 187-29.

Savage, Donald J. Signal processing apparatus and method for frequency translating signals. 3,508,075, 4-21-70, Cl. 307-233.

Savage, Jack Palmer; and Chenneour, Raymond, to Unilever Limited. Process of impregnating meat. 3,506,455, 4-14-70, Cl. 99-107.

Savage, John E.: *See—*
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Savage, Robert Harry; and Savage, John William, said Savage, John W., assor to said Savage, Robert H. Oil shale retorting apparatus having frusto- conical passages. 3,509,027, 4-28-70, Cl. 202-108.

Savage, Ronald, to International Nickel Company, Inc., The. Workable duplex structured ruthenium alloys. 3,498,763, 3-3-70, Cl. 29-182.1

Savage, Russell C., to Lynch Corporation. Product metering apparatus. 3,497,111, 2-24-70, Cl. 222-146.

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Savage, William E., to Shell Oil Company. Consolidation and granulation of oil- containing solid fines. 3,532,486, 10-6-70, Cl. 71-61.

Savage, William E., to Shell Oil Company. Granulation of oil-coated water-soluble fine particle of potash material. 3,548,046, 12-15-70, Cl. 264-118.

Savage, William E., to Shell Oil Company. Granulation of oil-containing solid fines. 3,549,346, 12-22-70, Cl. 71-11.

Savarieau, Henri Louis Victor, to Alkan, R., & Cie. Automatic release retaining device for jettisonable aircraft cargo. 3,503,576, 3-31-70, Cl. 244-137.

Savela, Edward H., to Pako Corporation. Roller for transporting sheet material. 3,513,519, 5-26-70, Cl. 29-125.

Savela, Edward H., to Pako Corporation. Driving device for a series of rollers. 3,520,461, 7-14-70, Cl. 226-188.

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Savides, Christos, to American Cyanamid Company. Synergistic flame-retardant compositions. 3,522,204, 7-28-70, Cl. 260-45.8

Savides, Christos, to American Cyanamid Company. Synergistic flame-retardant compositions. 3,530,088, 9-22-70, Cl. 260-45.8

Savides, Christos, to American Cyanamid Company. Synergistic flame-retardant compositions. 3,530,089, 9-22-70, Cl. 260-45.8

Savides, Christos, to American Cyanamid Company. Synergistic flame-retardant compositions. 3,530,090, 9-22-70, Cl. 260-45.8

Savides, Christos, to American Cyanamid Company. Synergistic flame-retardant compositions. 3,532,668, 10-6-70, Cl. 260-45.8

Savides, Christos, to American Cyanamid Company. Synergistic flame-retardant compositions. 3,547,876, 12-15-70, Cl. 260-45.8

Savides, Christos, to American Cyanamid Company. Synergistic flame-retardant compositions. 3,547,877, 12-15-70, Cl. 260-45.8

Savides, Christos, to American Cyanamid Company. Synergistic flame-retardant compositions containing diels-alder adducts and phosphorous compounds. 3,547,878, 12-15-70, Cl. 260-45.8

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Saville, Rowland Whincup, to Du Pont de Nemours, E. I., and Company. Sulfur-modified polymers of chloroprene containing boric acid. 3,542,727, 11-24-70, Cl. 260-45.7

Savin, Anatoly Ivanovich; Golubev, Alexandr Ivanovich; and Lomakina, Valentina Mikhailovna. Apparatus for non-contact measurement of semiconductor resistivity including a toroidal inductive coil with a gap. 3,544,893, 12-1-70, Cl. 324-62.

Savin Business Machines Corporation: *See—*
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Savinelli, Emilio A.; and Rice, James K., to Drew Chemical Corporation. Corrosion and scale inhibitor compositions and processes therefor. 3,518,203, 6-30-70, Cl. 252-181.

Savinese, Stanley J.; and Gerhart, Gilbert B., to Burroughs Corporation. Complementary storage and driver flip-flop circuits. 3,524,080, 8-11-70, Cl. 307-291.

Saving, Frank T., to Saving Machine & Supply Company. Method of converting a brass valve into a cryogenic valve. 3,538,576, 11-10-70, Cl. 29-157.1

Saving Machine & Supply Company: *See—*
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Savinkov, Viktor Ivanovich: *See—*
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Savino, Henry C., to Westinghouse Electric Corporation. Elevator system with car selection. 3,507,363, 4-21-70, Cl. 187-29.

Savino, Henry C., to Westinghouse Electric Corporation. Automatic cancellation of false calls. 3,519,102, 7-7-70, Cl. 187-29.

Savino, Henry C.; and Suozzo, John, to Westinghouse Electric Corporation. Elevator supervisory system. 3,504,770, 4-7-70, Cl. 187-29.

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Suozzo, John; and Savino, Henry C.,3,509,969.
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Savio, Carl T.; and Savio, Margaret M. Safety lock for windows. 3,512,821, 5-19-70, Cl. 292-305.

Savio, Luciano. Thread knotting apparatus. 3,544,144, 12-1-70, Cl. 289-2.

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Savitski, Michael J., to United States of America, Atomic Energy Commission. Preparation and purification of crystalline boron. 3,520,482, 7-14-70, Cl. 241-3.

Savko, Charley. Apparatus for forming slits in an elongated linearly moving tube. 3,545,336, 12-8-70, Cl. 90-15.

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Savoie, Hilbert J. Underwater buoy release. 3,499,411, 3-10-70, Cl. 114-235.

Savory, Frederick R., to Steel Construction & Engineering Co., (Notts.) Limited. Guillotines. 3,495,489, 2-17-70, Cl. 83-165.

Savushkina, Valentina Ivanovna: *See—*
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Sawada, Eiji; and Ikeuchi, Hiroshi, to Denki Onkyo Co., Ltd. Blue beam correcting devices for color television receiving tubes. 3,533,031, 10-6-70, Cl. 335-212.

Sawada, Hideo; and Miyagawa, Fumihiro, to Kabushiki Kaisha Ricoh. Coupling between spring drive and camera spool. 3,491,957, 1-27-70, Cl. 242-71.5

Sawada, Ryoka: *See—*
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Sawada, Teruo: *See—*
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Sawagata, Shinichi, to Tokyo Shibaura Electric Co. Ltd. Apparatus for making a multielement electron gun member. 3,530,560, 9-29-70, Cl. 29-25.19

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Sawai, Akira, to Nippon Electric Company, Limited. Multilevel code signal transmission system. 3,521,274, 7-21-70, Cl. 340-349.

Sawai, Masahide, to Sony Corporation. Convergence system for a color picture tube. 3,500,114, 3-10-70, Cl. 315-13.

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Sawarski, Jerzy; Gebicki, Zbigniew; Raczka, Zbigniew; Palik, Jozef; and Waclaw, Pawel, to Zaklady Konstrukcy jno-Mechanizacy jne Przemyslu. Shock absorbing device for a bucket loader. 3,502,235, 3-24-70, Cl. 214-131.

Sawatari, Takeo, to Optics Technology, Inc. Optical filtering method and apparatus. 3,549,240, 12-22-70, Cl. 350-162.

Sawato, Iwao: *See—*
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Makino, Katsuo; and Sawato, Iwao,3,494,789.
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Sawdey, George W., to Eastman Kodak Company. 2-Phenylimino-3-substituted-5-benzylidene-4- thiazolidone. 3,507,858, 4-21-70, Cl. 260-240.

Sawdon, Victor J., to Kimberly-Clark Corporation. Multiform envelopes. 3,525,469, 8-25-70, Cl. 229-73.

Sawers, Donald Alexander. Garden or field watering devices. 3,488,001, 1-2-70, Cl. 239-229.

Sawert, Walter, to Continental Can Company, Inc. Compressive stress forming of container flanges. 3,538,874, 11-10-70, Cl. 113-120.

Sawert, Walter, to Continental Can Company, Inc. Margin preparation method and machine. 3,540,168, 11-17-70, Cl. 51-317.

Sawhill, Duane L.: *See—*
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Sawrenko, Peter. Vegetable and fruit peeler. 3,491,819, 1-27-70, Cl. 146-203.

Sawyer, Charles W.: *See—*
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Sawyer, Charles W., to Celotex Corporation, The. Ceiling suspension system and panel. 3,516,212, 6-23-70, Cl. 52-592.

Sawyer, David F. Method and apparatus for forming novel lighting element coils of fluorescent glass tubing. 3,551,128, 12-29-70, Cl. 69-109.

Sawyer, Edgar W., Jr.; Albert, Charles G.; and Miller, John G., to Engelhard Minerals & Chemical Corporation, mesne. Kaolin slurries containing peroxyhydrates as germicides. 3,519,454, 7-7-70, Cl. 106-288.

Sawyer, Frank L. Tethering device. 3,508,525, 4-28-70, Cl. 119-117.

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Sawyer, Harold T., 17 1/2% to Beehler, Vernon D., and 82 1/2% to Sawyer, Harold T. Fabric cleaning device. 3,497,898, 3-3-70, Cl. 15-98.

Sawyer, Harold T., 17 1/2% to Beehler, Vernon D. Utilization of sound wave energy. 3,507,695, 4-21-70, Cl. 134-1.

Sawyer, Harold T., 17 1/2% to Beehler, Vernon, D. Sonic energy cleaning appliance. 3,535,726, 10-27-70, Cl. 15-22.

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Sawyer, James L.; and Harbert, James W. Apparatus for shaping pliable workpieces. 3,540,249, 11-17-70, Cl. 72-22.

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Sawyer, Willard A. Pipeline plugging pig and method for temporarily plugging pipelines. 3,503,424, 3-31-70, Cl. 138-97.

Sawyer-Tower Products, Inc.: *See—*
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Saxmark, Olov Pontus, to AB Industrifjadrar. Buckles for safety belts. 3,514,821, 6-2-70, Cl. 24-230.

Saxon, Arthur F.: *See—*
Karnofsky, George B.; Saxon, Arthur F.; and Good, Robert D.,3,531,259.

Saxon, Bruce Ronald; and Thompson, Richard A., to International Telephone and Telegraph Corporation. Bridge circuit for measuring audio line impedance. 3,536,996, 10-27-70, Cl. 324-57.

Saxon, James B., to Anderson Electric Corporation. High voltage bus connectors shielded against corona discharge. 3,527,875, 9-8-70, Cl. 174-73.

Saxon, Spencer David. Multi-image system. 3,528,730, 9-15-70, Cl. 352-85.

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Saxton, Arthur L. Retorting of oil shale. 3,526,586, 9-1-70, Cl. 208-11.

Saxton, Clarence E. Sight ruler for perspective drafting. 3,503,129, 3-31-70, Cl. 33-72.

Say, Alan William, to Gerrard Engineering Limited. Record steadying means for record changers. 3,531,128, 9-29-70, Cl. 274-10.

Say, Alan W., to Plessey Company Limited, The. Spring-supported unit plates, more particularly for gramophone record players. 3,516,629, 6-23-70, Cl. 248-20.

Sayce, Leonard A.: *See*—
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Sayer, Johannes: *See*—
Franz, Herbert; Haug, Gerhard; Meyer, Friedhelm; Werner, Frithjof; Straif, Kurt; Steimer, Richard; Sayer, Johannes; and Reichelt, Hans,3,527,972.

Sayers, Eugene H.: *See*—
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Sayers, Herbert D., Sr. Hinged gutter fascia. 3,507,078, 4-21-70, Cl. 52-15.

Sayers, Samuel Alexander. Hoof-to-ground angle gauge for measuring horses' hoofs and feet. 3,494,044, 2-10-70, Cl. 33-195.

Sayigh, Adnan A. R.; and Tilley, James N., to Upjohn Company, The. Secondary carbamyl chlorides. 3,501,523, 3-17-70, Cl. 260-544.

Sayigh, Adnan A. R.; and Ulrich, Henri, to Upjohn Company, The. 4-Nitro-2,6-dichlorophenyl isocyanate and preparation of organic isocyanates. 3,492,331, 1-27-70, Cl. 260-453.

Sayigh, Adnan A. R.; and Ulrich, Henri, to Upjohn Company, The. Isocyanato alkyl esters of aromatic acids. 3,492,332, 1-27-70, Cl. 260-471.

Sayigh, Adnan A. R.; and Ulrich, Henri, to Upjohn Company, The. Sulfonylcarbodiimides. 3,527,800, 9-8-70, Cl. 260-556.

Sayigh, Adnan A. R.; and Ulrich, Henri, to Upjohn Company, The. 1,3-Thiazetidinones. 3,546,248, 12-8-70, Cl. 260-327.

Sayigh, Adnan A. R.: *See*—
Farrissey, William J., Jr.; Recchia, Francesco P.; and Sayigh, Adnan A. R.,3,493,612.
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Farrissey, William J., Jr.; Rose, James S.; and Sayigh, Adnan A. R.,3,494,933.
Odinak, Alec; Reymore, Harold E., Jr.; and Sayigh, Adnan A. R.,3,499,009.

Sayigh, Adnan A.R.; and Ulrich, Henri, to Upjohn Company, The. Preparation of o-isocyanatobenzoyl chlorides. 3,531,509, 9-29-70, Cl. 260-453.
Rausch, Karl W., Jr.; and Sayigh, Adnan A. R.,3,542,736.
Reymore, Harold E., Jr.; and Sayigh, Adnan A. R.,3,531,415.

Sayin, Ahmet Nuri, to Esso Research and Engineering Company. Deep dyeing polycarbonamide filament. 3,511,815, 5-12-70, Cl. 260-78.

Sayles, David C., to United States of America, Army. Self-extinguishing composition comprising poly- butadieneacrylic acid or carboxy-terminated polybutadiene. 3,489,714, 1-13-70, Cl. 260-41.

Sayles, David C., to United States of America, Army. Poly 1,4-bis[bis(difluoroamino)methyl]-3,5-dioxa-2- hydroxymethylpentane. 3,506,713, 4-14-70, Cl. 260-584.

Sayles, David C., to United States of America, Army. Solid propellant composition with a polymeric binder containing ammonium perchlorate and aluminum. 3,551,225, 12-29-70, Cl. 149-19.

Sayles, Donald A., to Westinghouse Electric Corporation. Device for oxygen measurement. 3,546,086, 12-8-70, Cl. 204-195.

Sayles, Robert E. Tape punch computer apparatus. 3,491,940, 1-27-70, Cl. 234-108.

Saylor, Charles Proffer, to United States of America, Commerce. Continuous gas-liquid chromatography method utilizing annular open columns. 3,511,028, 5-12-70, Cl. 55-67.

Saylor, John C., to Dow Corning Corporation. Solid lubricant composition. 3,503,926, 3-31-70, Cl. 260-46.5

Saylor, William H. Plural electromagnet binary decoding positioning device. 3,495,240, 2-10-70, Cl. 340-373.

Sayous, Leon: *See*—
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Sayre, Robert Henry: *See*—
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Haner, Lambert; and Sayre, Robert H.,3,543,116.

Sayres, Alden R., to Princeton Gamma-Tech, Inc. Composite solid state radiation detector. 3,524,985, 8-18-70, Cl. 250-83.3

Sbare, Armand J. Lawn edging structure. 3,495,352, 2-17-70, Cl. 47-33.

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Sbrana, Glauco: *See*—
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Sbrilli, Anthony. Horizontal axis, flat lifting rotor and control system for aircraft. 3,506,220, 4-14-70, Cl. 244-19.

S&C Electric Company: *See*—
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S&C Schaft Equipment Co., Ltd.: *See*—
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Scaboo, Gust N.: *See*—
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Scaccia, Philip M. Phonograph record holder. 3,549,225, 12-22-70, Cl. 312-10.

Scaggs, Orville C. Apparatus for pipe handling. 3,532,229, 10-6-70, Cl. 214-2.5

Scaggs, Robert T., to American Seating Company. Power-actuated telescoping platform assembly. 3,488,898, 1-13-70, Cl. 52-10.

Scaglione, Paul J. Pressure balanced regulating valve. 3,493,008, 2-3-70, Cl. 137-219.

Scala, Luciano C.; and Traynor, Edward J., to Westinghouse Electric Corporation. Insulated conductor. 3,526,544, 9-1-7, Cl. 117-218.

Scale Specialities Co.: *See*—
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Scales, John Tracey, to National Research Development Corporation. Prosthetic bone joint socket. 3,528,109, 9-15-70, Cl. 3-1.

Scalia, Joseph: *See*—
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Scalora, Anthony J., to Owens-Illinois, Inc. Method of molding plastic articles. 3,511,845, 5-12-70, Cl. 264-294.

Scalzo, Augustine J.; and Allen, James M., to Westinghouse Electric Corporation. Rotor structure for an axial flow machine. 3,551,068, 12-29-70, Cl. 415-173.

Scalzo, Augustine J.; and Borden, James H., to Westinghouse Electric Corporation. Diaphragm seal structure. 3,529,904, 9-22-70, Cl. 415-136.

Scalzo, Augustine J.; and Zabrodsky, Andrew, to Westinghouse Electric Corporation. Rotary machine apparatus. 3,493,212, 2-3-70, Cl. 253-39.

Scalzo, Augustine J.; and Zabrodsky, Andrew, to Westinghouse Electric Corporation. Side plates for turbine blades. 3,501,249, 3-17-70, Cl. 416-95.

Scalzo, Augustine J.; and Zabrodsky, Andrew, to Westinghouse Electric Corporation. Nozzle blade structure. 3,529,903, 9-22-70, Cl. 415-115.

Scam Instrument Corporation, The: *See*—
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Linder, Kenneth C., 3,525,988.

Scamaton, Patrick J.: *See*—
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Scan Coin AB: *See*—
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Scandia Packaging Machinery Company: *See*—
Leszczynski, Martin E., 3,515,266.
Mateyka, Milan; and Leszczynski, Martin E., 3,537,232.

Scanley, Clyde Stephen; and Panzer, Hans Peter, to American Cyanamid Company. Process for the manufacture of cationic polyacrylamide. 3,503,946, 3-31-70, Cl. 260-89.7

Scanlon, John J., Jr.; and Quinlan, Joseph B., to United States of America, Army. Super-pressure thermocouple. 3,505,124, 4-7-70, Cl. 136-232.

Scanlon, John J., to Remington Arms Company, Inc. Expendable case ammunition. 3,527,137, 9-8-70, Cl. 89-1.

Scanlon, Robert M.; and Gentry, Charles B., to Granco Equipment, Inc. Temperature sensing of billets. 3,539,100, 11-10-70, Cl. 236-15.

Scanlon, Thomas Albert. Sound tube head set ear cushion and ambient noise plug. 3,539,031, 11-10-70, Cl. 181-23.

Scanlon, Thomas Albert, to Avid Corporation. Stethoscope. 3,539,032, 11-10-70, Cl. 181-24.

Scannell, James Parnell: *See*—
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Scans Associates, Inc.: *See*—
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Converse, Vernon G., III; Clayton, Robert W.; and Westervelt, James T., 3,524,344.
Converse, Vernon G., III; Allington, George R.; Mosher, Peter J.; and Seymour, Lee J., 3,527,087.
Schrom, Andrew F., 3,538,759.

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Scapicchio, Anthony J.: *See*—
Litant, Irving; and Scapicchio, Anthony J.,3,493,155.

Scaramucci, Domer. Combined stop and check valve. 3,491,796, 1-27-70, Cl. 137-614.2

Scaramucci, Domer. Reciprocating valve assembly. 3,521,666, 7-28-70, Cl. 137-454.2

Scaramucci, Domer. Valve assembly with insertable valve unit. 3,531,081, 9-29-70, Cl. 251-151.

Scaramucci, Domer. Butterfly valve assembly. 3,531,082, 9-29-70, Cl. 251-151.

Scaramucci, Domer. High pressure valve assembly. 3,542,334, 11-24-70, Cl. 251-152.

Scaramucci, Domer. Downstream sealing ball valves. 3,542,335, 11-24-70, Cl. 251-172.

Scaramucci, Domer. Throttling valve with protected seals. 3,542,337, 11-24-70, Cl. 251-209.

Scaramucci, Domer. Throttling valve. 3,542,338, 11-24-70, Cl. 251-209.

Scarborough, Frederick, Sr. Ultraviolet air sterilizer and ozone generator. 3,543,021, 11-24-70, Cl. 250-43.

Scarborough, James Anthony. Golf putter. 3,516,674, 6-23-70, Cl. 273-169.

Scarborough, William M.: *See*—
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Scarborough, Zebulon V.: *See*—
Hays, John D.; Hausfeld, Bernard J.; and Scarborough, Zebulon V.,3,512,704.

Scarbrough, Alfred D., to Bunker-Ramo Corporation, The, mesne. Semiparallel content addressable memory. 3,500,350, 3-10-70, Cl. 340-174.

Scarbrough, Alfred D., to Bunker-Ramo Corporation, The, mesne. Infra-red printer. 3,512,158, 5-12-70, Cl. 346-76.

Scarbrough, Alfred D., to Bunker-Ramo Corporation, The. Magnetometer capable of operating with a very low input power. 3,541,432, 11-17-70, Cl. 324-43.

Scarbrough, Alfred D.: *See*—
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Scarcella, Frank A.: *See*—
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Scardino, Weldon M.: *See*—
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Scarfe, Frederick; and Penberthy, Harvey Larry, said Scarfe assor. to Penelectro Limited. Electrode circuit for hex electric furnace. 3,520,979, 7-21-70, Cl. 13-18.

Scarfi, Alberto; and Gugliotta, Emanuele, to Sincat-Societa Industriale Catanese S.p.A. Method of processing kainite ores through intermediate formation of langbeinite. 3,499,725, 3-10-70, Cl. 23-38.

Scariano, Emanuel F.: *See*—
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Scarnato, Thomas J.; Gordon, Paul C.; and Brunker, Robert H., to International Harvester Company. Cutter bar gag limiting device. 3,540,197, 11-17-70, Cl. 56-286.

Scarnato, Thomas J.; Goron, Paul C.; and Morkoski, James, to International Harvester Company. Implement control assembly. 3,517,492, 6-30-70, Cl. 56-25.

Scarpelli, August F.; Ferguson, Millard A.; and Ross, John J., to General Motors Corporation. Electrical discharge machining apparatus. 3,517,154, 6-23-70, Cl. 219-69.

Scarpelli, Joseph A., to National Cash Register Company, The. Process for drying capsule walls of hydrophilic polymeric material. 3,516,942, 6-23-70, Cl. 252-316.

Scarr, Robert walter Alister, to Sandard Telephones & Cables Limited. Apparatus for analyzing a complex waveform containing pitch synchronous information. 3,546,584, 12-8-70, Cl. 324-77.

Scarr, William Theodore: *See*—
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Scarrot, Gordon George; and Cook, Alan Dennis, to International Computers and Tabulators Limited. Systems for sensing and recognising or analysing data. 3,504,342, 3-31-70, Cl. 340-146.3

Scarrott, Gordon George, to International Computers and Tabulators Limited. Light guide electro-optical devices. 3,531,181, 9-29-70, Cl. 350-150.

Scarrott, Gordon George; and Truman, Norman Nathan, to International Computers Limited. Magnetic head with conductive gap spacer. 3,548,115, 12-15-70, Cl. 179-100.2

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Schaad, William J.: *See*—
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Schaaf, Bodo; and Winter, Heinz, to Elektrochemische Werke Munchen A.G. Peroxidic catalysts for polymerization of ethylenically unsaturated compounds. 3,541,026, 11-17-70, Cl. 252-426.

Schaaf, Cecil F.; and Macciomei, Walter. Panels for homes and building construction. 3,499,256, 3-10-70, Cl. 52-483.

Schaaf, Frederick W.: *See*—
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Schaaf, Frederick W., to International Business Machines Corporation. Tapeless carriage control. 3,499,516, 3-10-70, Cl. 197-133.

Schaaf, Robert L., to International Business Machines Corporation. Remotely controlled high energy discharge drive circuit. 3,518,656, 6-30-70, Cl. 340-310.

Schaaf, Robert: *See*—
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Schaaf, Siegfried; and Gaut, Peter S., to Inventa A.G. fur Forschung und Patentverwertung. Method for the preparation of ternary copolyamides and mixed polyamides. 3,536,780, 10-27-70, Cl. 260-857.

Schaaf, Siegfried; and Gaut, Peter S., to Inventa AG fur Forschung und Patentverwertung. Process for the polymerization of lactams in alkaline medium. 3,538,060, 11-3-70, Cl. 260-78.

Schaap, Jacob Arie; and Torenvliet, Lim, to Lever Brothers Company. Food spread. 3,502,481, 3-24-70, Cl. 99-116.

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Schaar, Charles H., to Kendall Company, The. Film walled resilient nipples and containers and liquid containing packages integral therewith. 3,500,831, 3-17-70, Cl. 128-252.

Schaar, John L.; and Weesner, William E., to Monsanto Research Corporation. (Alkyl amino alkylene) alkyl silylalkylene malonic acid, ester derivatives and acid addition salts. 3,517,041, 6-23-70, Cl. 260-448.2

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Schabert, Robert; and Buchsenstein, Wilhelm, to Freudenberg, Carl, Kommanditgesellschaft auf Aktien. Interlining. 3,501,368, 3-17-70, Cl. 161-112.

Schachner, Eugene, to Burroughs Corporation. Digital processor with variable field length operands using a first and second memory stack. 3,496,550, 2-17-70, Cl. 340-172.5

Schachner, Herbert: *See*—
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Schachowskoy, Theodor: *See*—
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Schachowskoy, Theodor, to Freudenberg, Carl. Method for producing vapor permeable polyurethane fibers. 3,536,639, 10-27-70, Cl. 260-2.5

Schachowskoy, Theodor; and Knoke, Jurgen, to Freudenberg, Carl. Method of producing water vapor and air permeable films of polymeric material. 3,546,004, 12-8-70, Cl. 117-104.

Schacht, Eckhard: *See*—
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Schacht, Hans: *See*—
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Schacht, William F.; and Fisher, William F., to RCA Corporation. Apparatus for previewing slides. 3,514,198, 5-26-70, Cl. 353-21.

Schack, Andreas T.: *See*—
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Schack, John B., to Concrete Conduit Co. Hinge for an access panel. 3,527,148, 9-8-70, Cl. 94-36.

Schack, Warren R.; and Connick, Francis Glenn, to Swift & Company. Preparation of meat pieces and product. 3,533,803, 10-13-70, Cl. 99-107.

Schackert, Heinz, to Schneider, Jos., & Co. Optical fiber system for the transmission of optical images. 3,512,861, 5-19-70, Cl. 350-96.

Schad, Jerry L.: *See*—
Carpenter, Richard D.; Schad, Jerry L.; Delozier, Jess M.; Brown, John H.; and Roy, William G.,3,531,323.

Schade, Gustav: *See*—
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Schade, Helmut, to International Business Machines Corporation. Raster scanning apparatus which provides an output corresponding to a scan along only a few predetermined lines. 3,543,238, 11-24-70, Cl. 340-146.3

Schade, Johannes: *See*—
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Schadt, Oliver S.; and Schubert, Luther A. Blood pressure measuring and recording apparatus. 3,500,822, 3-17-70, Cl. 128-2.05

Schaedler, Gilbert J.; and Winters, John B., to Ethone, Incorporated, mesne. Acid zinc electrodepositing. 3,505,184, 4-7-70, Cl. 204-55.

Schaefer, Allen A. Portable fishing pole holder and alarm. 3,546,805, 12-15-70, Cl. 43-17.

Schaefer, Carl F., to United Aircraft Corporation. On axis collimated viewing system. 3,547,522, 12-15-70, Cl. 350-174.

Schaefer, David H.; and Cliff, Rodger A., to United States of America, National Aeronautics and Space Administration. Ripple add and ripple subtract binary counters. 3,532,866, 10-6-70, Cl. 235-175.

Schaefer, Donald L.: *See—*
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Schaefer, Donald L., to General Electric Company. Photolytic etching of nickel-chromium alloy. 3,489,563, 1-13-70, Cl. 96-36.

Schaefer, Donald L., to General Electric Company. Photolytic etching of silicon dioxide. 3,489,564, 1-13-70, Cl. 96-36.

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Schaefer, Donald L., to General Electric Company. Etching silicon dioxide by direct photolysis. 3,516,346, 6-23-70, Cl. 96-36.

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Schaefer, Donald L., to General Electric Company. Etching of silcon dioxide by photosensitive solutions. 3,520,687, 7-14-70, Cl. 96-36.

Schaefer, Donald L.; and Burgess, James F., to General Electric Company. Formation of thin films of gold, nickel or copper by photolytic deposition. 3,529,961, 9-22-70, Cl. 96-36.2
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Schaefer, Edmund T.: *See—*
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Schaefer, Edward E. Safety bottle cap. 3,501,041, 3-17-70, Cl. 215-9.

Schaefer, Edward E. Chain door lock. 3,514,143, 5-26-70, Cl. 292-264.

Schaefer, Edward J., to Franklin Electric Co., Inc. Centrifugal mechanism and switch assembly. 3,521,496, 7-21-70, Cl. 73-538.

Schaefer, Edward J., to Franklin Electric Co., Inc. Reversible electric motor drive. 3,522,506, 8-4-70, Cl. 318-475.

Schaefer Equipment Company: *See—*
Cale, Roland E., 3,492,950.

Schaefer, Frederic Charles; and Zimmermann, William Douglas, to American Cyanamid Company. Process for the preparation of partially esterified polyhydroxylic polymers. 3,535,308, 10-20-70, Cl. 260-209.5

Schaefer, Frederic Charles; and Zimmermann, William Douglas, to American Cyanamid Company. Aqueous process of preparing pseudoureas and acid salts thereof. 3,551,489, 12-29-70, Cl. 260-564.

Schaefer, Friedrich: *See—*
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Schaefer, George B.: *See—*
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Schaefer, George E.; and Anderson, Robert I., to Brunswick Corporation. Furniture assembly. 3,494,662, 2-10-70, Cl. 297-248.

Schaefer, George J., Jr. Remote hand throttle control. 3,529,489, 9-22-70, Cl. 74-526.

Schaefer, Harold D.; and Durham, John W., to Phillips Petroleum Company. Heat exchanger with cleaning means. 3,521,706, 7-28-70, Cl. 165-95.

Schaefer, Helmut: *See—*
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Schaefer, Hugo J.; and Tintera, John W., to Sillery, Charles B., executor of the estate of said Tintera, deceased, assor to Tintera, Virginia H. Method and composition for production of dietetic bread. 3,497,360, 2-24-70, Cl. 99-90.

Schaefer, Johannes M., to Technipower Incorporated. Self-oscillating switching type power supply. 3,504,263, 3-31-70, Cl. 321-2.

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Schaefer, John W., to Smith, A. O., Corporation. Integral shield for discharge conveyor trough. 3,487,956, 1-6-70, Cl. 214-17.

Schaefer, Kenneth A.: *See—*
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Schaefer, Paul; Huber-Emden, Helmut; Hitz, Hans-Rudolf; and Maeder, Arthur, to Ciba Limited. 5 or 7 Amidomethylene 8 hydroxyzuinolines. 3,491,100, 1-20-70, Cl. 260-287.

Schaefer, Robert G., to Central Specialties Co. Gun mount set. 3,507,398, 4-21-70, Cl. 211-4.

Schaefer, Robert G. Locking hanger assembly. 3,529,799, 9-22-70, Cl. 248-496.

Schaefer, Robert H.: *See—*
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Schaeffer, Robert A., to Xerox Corporation. Xerographic reproducing apparatus. 3,523,725, 8-11-70, Cl. 355-8.

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Schaeren, Sidney Frank; and Furlenmeier, Andre, to Hoffmann-La Roche Inc. Process for the manufacture of carbonyl compounds. 3,509,185, 4-28-70, Cl. 260-397.3

Schaerer, Andre Jacques. Synthetic plastic pipes. 3,547,162, 12-15-70, Cl. 138-125.

Schaevitz, Herman. Exercising frame for strengthening the spine. 3,521,881, 7-28-70, Cl. 272-63.

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Schafer, Hans, to Nassovia Werkzeugmaschienfabrick G.m.b.H. Tracing mechanism for duplicating machine tools particularly duplicating milling machines. 3,512,451, 5-19-70, Cl. 90-62.

Schafer, Heinrich, to Farbenfabriken Bayer Aktiengesellschaft. Alkali treatment of chromium ores. 3,510,256, 5-5-70, Cl. 23-56.

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Schafer, Leonhard. Pastry twister. 3,511,189, 5-12-70, Cl. 107-8.

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Schafer, Loren C. Hydraulic control and drive system for a fork lift truck. 3,493,138, 2-3-70, Cl. 214-674.

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Schaller, Harold E., to Smith's, John E., Sons Co., div. of Hobam, Inc. Knife assembly for meat cutting machine. 3,491,818, 1-27-70, Cl. 146-96.

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Schaller, Robert L., to Engelberg, Inc. Centerless grinding system. 3,503,156, 3-31-70, Cl. 51-139.

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Schaller, Robert L., to Sundstrand Engelberg, Inc. Belt-platen abrading machine. 3,543,448, 12-1-70, Cl. 51-148.

Schaller, Robert L.; and Kunzelman, George R., to Sundstard-Engelberg, Inc. Turbine rotor grinding machine. 3,546,817, 12-15-70, Cl. 51-49.

Schaller, Robert L.; and Towne, Donald L., to Sundstrand-Engelberg, Inc. Bar feeding apparatus. 3,515,289, 6-2-70, Cl. 214-1.

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Scharf, Gerhard; and Rumberg, Dieter, to VEB Edelstahlwerk. Crystallizers for vacuum-melting installations, particularly electron-beam melting furnaces. 3,528,484, 9-15-70, Cl. 164-273.

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Scheuerer, Guenter; and Pommer, Ernst-Heinrich, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Fungicides for plant protection. 3,491,189, 1-20-70, Cl. 424-245.

Scheuerer, Guenter; Zeidler, Adolf; and Fischer, Adolf, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. 2,4-Dioxotetrahydroquinazolines. 3,544,575, 12-1-70, Cl. 260-260.

Scheuermann, Horst; Seefelder, Matthias; and Eilingsfeld, Heinz, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Continuous production of tetrachloro-o- phthalonitrile by chlorination of o-phthalonitrile with Pt or Pd catalyst. 3,497,547, 2-24-70, Cl. 260-465.

Scheufler, Roland, to Schmidt, Karl, GmbH. Reinforced rotary piston. 3,500,797, 3-17-70, Cl. 123-8.

Scheuring, George R.: *See—*
Hanna, Walter W.; Gaylor, Robert B., Jr.; and Scheuring, George R.,3,495,734.

Scheurn, Carl C.: *See—*
Borgquist, Neil E.; Scheurn, Carl C.; Hughes, Jesse T.; and Maffia, Dom N.,3,541,934.

Scheve, Martin R.; and Young, Charles N., to United States of America, Atomic Energy Commission, mesne. Most powerful radioisotope heated thermoelectric generator providing for intact re-entry of the heat source means from space. 3,520,734, 7-14-70, Cl. 136-202.

Schevenell, Leonard O., to Merit Company, The. Structure for sealing casket lids. 3,545,056, 12-8-70, Cl. 27-16.

Schewe, Richard A.; and Yone, Harold R., to Barber-Colman Company. Method and machine for automatically relocating spinning frame travelers. 3,546,870, 12-15-70, Cl. 57-34.

Schexnayder, Lawrence F.: *See—*
Cummins, Curtis F.; Smith, Donald L.; Warren, Larry G.; and Schexnayder, Lawrence F.,3,547,234.

Scheyer, Stuart R.: *See—*
Hamilton, William F.; and Scheyer, Stuart R.,3,503,523.

Schfield, J. Allan, to Union Carbide Corporation. Azeotropic composition. 3,539,462, 11-10-70, Cl. 252-170.

Schiappa, Carl A., Jr.; Place, John; Hudson, Raymond K.; and Grinstead, Robert R., to Dow Chemical Company, The. Extraction of boron from brines having a pH of less than about 1.7 using β-aliphatic diols. 3,493,349, 2-3-70, Cl. 23-312.

Schiar, John L.: *See—*
Weesner, William E.; and Schiar, John L.,3,529,004.

Schiaroli, Roberto. Orthodontic device. 3,529,353, 9-22-70, Cl. 32-14.

Schiavone, Frank J., to Raytheon Company. Heater with boron nitride coating. 3,531,678, 9-29-70, Cl. 313-337.

Schibisch, Horst, to Porsche, Dr.-Ing., H.c.F., KG, Firma. Bullet-proof grating for armored vehicle air intake and discharge openings. 3,504,644, 4-7-70, Cl. 109-49.5

Schicht, Werner, to Aktiengesellschaft Brown, Boveri & Cie. Exciter arrangement for synchronous motors. 3,509,439, 4-28-70, Cl. 318-183.

Schick, Andrew C. Flashlight type tester with resistance hot line and timing indicator means. 3,497,798, 2-24-70, Cl. 324-53.

Schick, Anton: *See—*
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Schick Electric Inc.: *See—*
Walter, Henry J.; and Spencer, Bruce J., 3,538,604.

Schick, Hans; Lehmann, Gerhard; and Hilgetag, Gunter, to Deutsche Akademie der Wissenschaften Zu Berlin. Process for the production of cycloalkane-1,3-diones. 3,504,036, 3-31-70, Cl. 260-586.

Schick, Henry W., to Gilbert Manufacturing Company, Inc. Machine for assembling wires into electrical fixtures. 3,504,416, 4-7-70, Cl. 29-203.

Schick, Henry: *See—*
Peterson, John W.; and Schick, Henry,3,504,329.

Schick, William F.; LaValley, William R.; Elfving, Claes T.; and Wahl, Marvin L., to Sylvania Electric Products, Inc. Boom and feed line construction for multielement antenna. 3,518,690, 6-30-70, Cl. 343-792.5

Schickedanz, Erich G., to Scholl Mfg. Co., Inc., The. Self-adhering foam composition. 3,540,977, 11-17-70, Cl. 161-160.

Schickedanz, Erich: *See—*
Bittner, Ernst; and Schickedanz, Erich,3,510,380.

Schickedanz, Erich, to Scholl-Werke G.m.b.H., Firma. Method of making surgical pads. 3,499,813, 3-10-70, Cl. 156-220.

Schickler, John F.: *See—*
Ackerman, Tracy R.; and Schickler, John F.,3,520,312.

Schieber, Isadore; and Slaybaugh, Loren E., to Eaton Yale & Towne, Inc. Lock key ejector. 3,492,843, 2-3-70, Cl. 70-388.

Schieber, Michael M., to Massachusetts Institute of Technology. Quantitative method for the production of single three-dimensional crystals from the vapor. 3,527,623, 9-8-70, Cl. 148-1.6

Schieber, Rudolf, Dr., Industrie-Unternehmunger KG: *See—*
Mies, Heinz, 3,488,786.

Schiebold, Warren L.; and Donohue, John C., to United States of America, Navy, mesne. Alterable matrix. 3,491,266, 1-20-70, Cl. 317-101.

Schiedel G.m.b.H., & Co.: *See—*
Anger, Hans G., 3,538,656.

Schiefer, Joachim: *See—*
Germscheid, Hans-Gunther; and Schiefer, Joachim,3,551,480.

Schiefler Tool and Engineering, Inc.: *See—*
Goff, Otis Ward, 3,522,722.

Schiegg, Dallas L., to Calgon Corporation. Method of flocculation with water-soluble condensation polymers. 3,523,892, 8-11-70, Cl. 210-54.

Schiekel, Manfred: *See—*
Hosemann, Rolf; Basler, Gunther; and Schiekel, Manfred,3,508,054.

Schiele, Karl, to Rollei-Werke Franke & Heidecke. Fresnel field lens for reflex cameras. 3,523,720, 8-11-70, Cl. 350-211.

Schieman, Richard D.: *See—*
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Schiene, Quentin J., to Reintjes, Geo. P., Co., Inc. Cooling sleeve for exhaust port of electric furnace roof. 3,541,998, 11-24-70, Cl. 122-6.5

Schier, Hans, to Sprague Electric Company. Multiple image forming device. 3,547,546, 12-15-70, Cl. 350-162.

Schier, Leon C.; Bittle, Harold G.; and Rylander, Arthur F., to PPG Industries, Inc. Coating compositions. 3,498,939, 3-3-70, Cl. 260-19.

Schier, Robert W.: *See—*
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Schier, Robert W.; and Singer, Leonard D., to Krueger Metal Products, Inc. Costumer with channeled face. 3,513,986, 5-26-70, Cl. 211-177.

Schieser, Warren J.; and Conners, John P., to Corrugated Container Company, The. Apparatus for automatic filling and capping of liquid containers having semi-rigid walls. 3,529,399, 9-22-70, Cl. 53-55.

Schiess Aktiengesellschaft: *See—*
Minkenberg, Willi, 3,541,890.
Traugott, Gert, 3,523,469.
Wagner, Hans O., 3,534,657.

Schiesser, Werner Hugo. Automatic apparatus for accurately cutting to size extruded lengths of solid and tubular material. 3,527,129, 9-8-70, Cl. 83-287.

Schiessl, Henry W., to Olin Mathieson Chemical Corporation. Manufacture of ammonium bromide and carbon monoxide from polybromomethanes. 3,505,010, 4-7-70, Cl. 23-85.

Schiessler, Siegfried: *See—*
Fuchs, Hermann; Meininger, Fritz; Osterloh, Fritz; and Schiessler, Siegfried,3,526,617.

Schiewart, Hans: *See—*
Foerste, Walter; Ostermay, Gottfried; Schreiber, Joachim; Noack, Werner; and Schiewart, Hans,3,548,232.

Schiff, George. Method of making wood chipboard. 3,490,969, 1-20-70, Cl. 156-62.2

Schiff, George, to Ulster Chipboard Company Limited, The. Presses. 3,511,177, 5-12-70, Cl. 100-257.

Schiff, Peter, to RCA Corporation. Switching type voltage and current regulator and load therefor. 3,500,127, 3-10-70, Cl. 315-224.

Schiffers, Josef, to Schloemann Aktiengesellschaft. Shear blades for cutting metal sheets or plates. 3,515,023, 6-2-70, Cl. 83-698.

Schiffers, Josef, to Schloemann Aktiengesellschaft. Shear blades. 3,541,911, 11-24-70, Cl. 83-694.

Schiffers, Josef, to Schloemann Aktiengesellschaft. Transverse dividing shears for metal plates. 3,542,643, 11-24-70, Cl. 83-698.

Schiffmacher, Fred J.: *See—*
Rovin, Herman; and Schiffmacher, Fred J.,3,531,107.

Schiffman, Bernard M.: *See—*
Matthaei, George L.; Young, Leo; and Schiffman, Bernard M.,3,537,040.

Schiffman, Julius: *See—*
Peace, George M.; Schiffman, Julius; and Szewczyk, Zdzislaw I.,3,525,993.

Schiffman, Julius; and Lynn, Howard F., to Chain Lakes Research Associates, Inc. Mirror apparatus with automatic dimming control. 3,510,205, 5-5-70, Cl. 350-279.

Schiffman, Murray M.: *See—*
Loughlin, Bruce J.; Rachwal, Ervin J.; and Schiffman, Murray M.,3,509,390.
Loughlin, Bruce J.; Rachwal, Ervin J.; and Schiffman, Murray M.,3,509,555.

Schiffmann, Richard: *See—*
Hagge, Walter; Quaedvlieg, Mathieu; Heusch, Rudolf; Hebbel, Konrad; and Schiffmann, Richard,3,516,833.

Schikarski, Lothar; and Teiwes, Hans-Jurgen, to Nukem Nuklear-Chemie und -Metallurgie Gesellschaft mbH. Apparatus for melting uranium and plutonium dioxides. 3,506,770, 4-14-70, Cl. 13-23.

Schilbred, Mathias Edward. Apparatus for slicing or cutting of fruit and vegetables, especially onion. 3,534,794, 10-20-70, Cl. 146-78.

Schlicher, David W., to Electric Machinery Mfg. Company. Annunciator and control system with specific application to internal combustion engines. 3,512,405, 5-19-70, Cl. 73-116.

Schild, Edwin F. Shelf and bracket structure. 3,511,193, 5-12-70, Cl. 108-152.

Schilde Aktiengesellschaft: *See—*
Geiger, Andreas; and Eichhorn, Norbert, 3,494,047.

Schildkrot AG Vorm. Rheinische Gummi-und Celluloid- Fabrik: *See—*
Rabe, Erich, 3,507,502.

Schildmeier, John Henry. Balancing machine safety guard assembly. 3,521,495, 7-21-70, Cl. 73-487.

Schile, Richard D.: *See—*
Basche, Malcolm; and Schile, Richard D.,3,490,516.

Schile, Richard D., to United Aircraft Corporation. Electrostatic coatings. 3,543,831, 12-1-70, Cl. 164-89.

Schiler, Frederick S., to Portage Machine Company. Measuring device having sag compensation means. 3,501,840, 3-24-70, Cl. 33-169.

Schilf, Harold M.; and Beach, William R., to Pullman Incorporated. Floor clip. 3,524,666, 8-18-70, Cl. 287-189.35

Schill & Seilacher Chemische Fabrik: *See—*
Jaisle, Leopold A., 3,490,586.
Schmidt, Detlev; Zivi, Cacilia; and Alberts, Fritz, 3,544,494.

Schill, Hermann Heinz: *See—*
Richter, Carl Fritz; and Schill, Hermann Heinz,3,504,611.

Schill, Hermann. Rotary drum flake ice maker. 3,494,144, 2-10-70, Cl. 62-346.

Schillebeeckx, Konrad C., to Wanskuck Company. Tension control for rigid stranders. 3,543,501, 12-1-70, Cl. 57-59.

Schillebeeckx, Konrad C., to Wanskuck Company. Apparatus for producing stranded cable. 3,546,872, 12-15-70, Cl. 57-66.

Schiller, Barry, to Canterbury Belts Ltd. Label for belts. 3,513,575, 5-26-70, Cl. 40-2.

Schiller, Michael S., to Security Trust Company of Rochester (trustee), mesne. Control system for motor velocity and position. 3,548,282, 12-15-70, Cl. 318-606.

Schiller, Siegfried: *See—*
Thieme, Otto; Henneberger, Jurgen; Tieze, Hannes; Schiller, Siegfried; and Heisig, Ullrich,3,520,721.

Schilli, Alfred: *See—*
Hofer, Kurt; and Schilli, Alfred,3,497,512.

Schilling, Frederick A. E.: *See—*
Brown, Bernard Beau; and Schilling, Frederick A. E.,3,535,382.

Schilling, Hans-Dieter; and Schmeling, Gerhard, to Bergwerksverband GmbH. Device for separately supplying coarse grain and fine grain material to a container such that the material is uniformly distributed in the container. 3,532,326, 10-6-70, Cl. 259-18.

Schilling, Helmut Wilhelm, to International Standard Electric Corporation. Arrangement for tuning a teleprinter to the frequency of the incoming signal. 3,492,423, 1-27-70, Cl. 178-53.1

Schilling, Hugh K., to Horton Manufacturing Company, Inc. Rotary seal for clutch and brake members having relative rotation and reciprocation. 3,497,046, 2-24-70, Cl. 192-85.

Schilling, Hugh K., to Horton Manufacturing Company, Inc. Brake having spring engagement and fluid pressure release. 3,500,970, 3-17-70, Cl. 188-170.

Schilling, Louis C.: *See—*
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Schilling, Ronald B.; and Dobin, Charlotte, to RCA Corporation. Adaptive diode having mobile doping impurities. 3,515,953, 6-2-70, Cl. 317-234.

Schillinger, Jack. Prestressed concrete beams with wooden inserts and method of forming the same. 3,528,209, 9-15-70, Cl. 52-223.

Schilter, Max, to Contraves AG. Plain loom. 3,533,450, 10-13-70, Cl. 139-55.

Schiltknecht, Adolf, to Rieter Machine Works Ltd. Apparatus for changing the twist of a yarn in a spinning machine. 3,535,868, 10-27-70, Cl. 57-58.95

Schiltknecht, Adolf; and Graf, Max, to Rieter Machine Works, Ltd. Open end spinning device. 3,511,043, 5-12-70, Cl. 57-58.89

Schiltknecht, Adolf: *See—*
Landwehrkamp, Hans; Schreyer, Franz; Handschuch, Karl; and Schiltknecht, Adolf,3,492,804.

Schimbor, Richard F.: *See—*
De Acetis, William; Schimbor, Richard F.; and Morris, Rupert C.,3,520,816.

Schimbor, Richard F., to Shell Oil Company. Diethanolamides. 3,503,891, 3-31-70, Cl. 252-152.

Schimert, George; and Bohm, Toivo John. Artificial heart valve. 3,538,514, 11-10-70, Cl. 3-1.

Schimitschek, Erhard J.; Nehrich, Richard B., Jr.; and Schumacher, Edward R., to United States of America, Navy. Adjustable recirculating liquid lens laser cell. 3,541,469, 11-17-70, Cl. 331-94.5

Schimitschek, Erhard J.; Schumacher, Edward R.; and Cook, Corey G., to United States of America, Navy. Liquid lens liquid laser cell. 3,521,190, 7-21-70, Cl. 331-94.5

Schimke, Robert; and Strahle, Manfred, to International Standard Electric Corporation. Arrangement for stabilizing the rectified output voltage pulses of a transformer. 3,530,363, 9-22-70, Cl. 321-16.

Schimmel, Donald G., to Sylvania Electric Products, Inc. Nonlinear resistor. 3,505,633, 4-7-70, Cl. 338-212.

Schimmeyer, Werner K., to United States of America, Navy, mesne. Retract mechanism. 3,490,331, 1-20-70, Cl. 89-1.811

Schimpf, Luther G., to Bell Telephone Laboratories, Incorporated. Pulse amplitude modulation multiplex video transmission system. 3,492,432, 1-27-70, Cl. 179-15.

Schindel, Arnold; Caspar, John A.; and Reevie, John, to Singer-General Precision, Inc. Temperature compensated electric motor and pressure control servo valve. 3,533,032, 10-6-70, Cl. 335-217.

Schindelman, Marc M., to United Aircraft Corporation. Selecting the air source for an aircraft supercharger. 3,511,161, 5-12-70, Cl. 98-1.5

Schindelmann, Erika, borne Pichler: *See—*
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Schindler, Charles A.: *See—*
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Schindler, Darrel Lee, to Du Pont de Nemours, E. I., and Company. Process for polymerization of perfluorocarbons in the presence of metal cations inert to the system. 3,526,614, 9-1-70, Cl. 260-87.5

Schindler, Donald G.: *See—*
Patsey, John A.; and Schindler, Donald G.,3,550,436.

Schindler, Gottfried: *See—*
Sauter, Karl; Schindler, Gottfried; and Haerter, Alex,3,489,073.

Schindler, Harvey D.: *See—*
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Schindler, Henry Claude; and Drautman, James J., to RCA Corporation. Protective apparatus for a superconductive switch. 3,513,421, 5-19-70, Cl. 335-216.

Schindler, Herbert, to Schon & Cie GmbH. Cement applicators in shoe last machine. 3,503,367, 3-31-70, Cl. 118-3.

Schindler, Karl: *See—*
Hausenblas, Helmut; and Schindler, Karl,3,527,452.

Schindler, Ludwig, to Anstalt Europaische Handelsgesellschaft. Automatic gain control circuits for plural channel receivers. 3,496,472, 2-17-70, Cl. 325-307.

Schindler, Marvin E., to Mission Manufacturing Company. Percussion drill motor. 3,503,459, 3-31-70, Cl. 173-80.

Schindler, Othmar, to Wonder, A., Dr., S.A. Carbazole derivatives. 3,541,088, 11-17-70, Cl. 260-240.

Schindler, Rudolf A.: *See—*
United States of America,National Aeronautics and Space Administration, Administrator, 3,535,024.
United States of America,National Aeronautics and Space Administration, Administrator, 3,535,041.

Schindler, Rudolf R.: *See—*
Adams, Ralph D.; and Schindler, Rudolf R.,3,526,158.

Schindler, Walter: *See—*
Gansser, Charles; and Schindler, Walter,3,505,314.

Schindler, Walter; and Blattner, Hans, to Geigy Chemical Corporation. 5H-Dibenz[b,f]azepine derivatives. 3,501,459, 3-17-70, Cl. 260-239.

Schindler, Walter; and Blattner, Hans, to Geigy Chemical Corporation. 11-Aminoalkyl-dibenzo[b,f]oxepin-10(11H)-one. 3,524,855, 8-18-70, Cl. 260-268.

Schindler, Walter; and Dietrich, Henri, to Geigy Chemical Corporation. Compositions and methods for treating endogenous depression with 3-chloro-5-(γ-dimethylamino- propyl)-iminodibenzyl. 3,515,785, 6-2-70, Cl. 424-244.

Schineller, Eugene R.: *See—*
Flam, Richard P.; Schineller, Eugene R.; and Wilmot, Donald W.,3,542,536.

Schink, Norbert; and Stoiber, Rupert, to Siemens Aktiengesellschaft. Method of obtaining purest semiconductor material by elimination of carbon-impurities. 3,527,661, 9-8-70, Cl. 117-201.

Schink, Richard R.; and Klessig, Ernst F., to Rex Chainbelt Inc. Variable volume vane type pump. 3,549,281, 12-22-70, Cl. 418-31.

Schink, William N., to Indak Manufacturing Corporation. Plural break electrical switch. 3,500,003, 3-10-70, Cl. 200-16.

Schink, William N.; and Schaad, William J., to Indak Manufacturing Corporation. Electrical switches. 3,497,644, 2-24-70, Cl. 200-11.

Schinke, Georg: *See—*
Hass, Karl; Schinke, Georg; and Langenhoff, Fred,3,547,832.

Schinke, Heinz Joachim; and Raible, Hermann. Math. Bauerle GmbH Offset printing machine with interchangeable application and etching rollers. 3,517,613, 6-30-70, Cl. 101-142.

Schinzel, Erich; Austrup, Rolf; and Lebkucher, Karl Heinz, to Farbwerke Hoechst Aktiengesellschaft. Styryl benzoxazoles. 3,530,119, 9-22-70, Cl. 260-240.

Schinzel, Erich; Bildstein, Siegfried; and Lebkucher, Karl Heinz, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. 1-[4'-(β-Acylamino-ethylsulfonyl)-phenyl]-3-aryl- Δ_2-pyrazolines. 3,522,242, 7-28-70, Cl. 260-239.9

Schipf, Anton: *See—*
Pfister, Franz; Maus, Eicke; Durner, Josef; and Schipf, Anton,3,498,416.

Schipper, Edgar S.; and Levitan, Paul, to Shulton, Inc. Basically substituted alkoxy anthranilamides, their corresponding 2-nitro compounds, and derivatives thereof. 3,488,352, 1-6-70, Cl. 260-268.

Schippers, Heinz: *See—*
Braun, Siegfried; Ruppel, Friedrich; and Schippers, Heinz,3,516,120.

Schippers, Heinz. Spinning apparatus for multicomponent threads. 3,498,230, 3-3-70, Cl. 103-126.

Schippers, Heinz, to Barmag Barmer Maschinenfabrik Aktiengesellschaft. Inductively heated extrusion die. 3,521,325, 7-21-70, Cl. 18-12.

Schippers, Heinz; Lenk, Erich; and Neuhaus, Friedrich, to Barmag Barmer Maschinenfabrik Aktiengesellschaft. Multi-unit spinning and spooling assembly. 3,544,017, 12-1-70, Cl. 242-18.

Schippers, Heinz; and Lohest, Hans, to Barmag Barmer Maschinenfabrik Aktiengesellschaft. Apparatus for synchronizing the turning speeds of alternating current motors. 3,534,240, 10-13-70, Cl. 318-230.

Schippers, Heinz; Lohest, Hans; and Treptow, Heinz, to Barmag Barmer Maschinenfabrik Aktiengesellschaft. Devices for heating filaments or treads. 3,506,804, 4-14-70, Cl. 219-388.

Schippers, Heinz; Lohest, Hans; Weber, Wolfgang; and Lenk, Erich, to Barmag Barmer Maschinenfabrik Aktiengesellschaft. Regulating system for winding devices for threads or threadlike structures. 3,537,660, 11-3-70, Cl. 242-45.

Schippers, Heinz; and Weber, Wolfgang, to Barmag Barmer Maschinenfabrik Aktiengesellschaft. Process and apparatus for winding threads. 3,527,421, 9-8-70, Cl. 242-18.

Schira, John C., to RCA Corporation. Optical field correction devices for an electronic photocomposition system. 3,540,361, 11-17-70, Cl. 95-4.5

Schirmer, Henry G., to Grace, W. R., & Co. Apparatus for perforating film by electrical discharge. 3,502,845, 3-24-70, Cl. 219-384.

Schirmer, Henry G., to Grace, W. R., & Co. Method for preparing a non-woven fabric-like member. 3,539,666, 11-10-70, Cl. 264-51.

Schjeldahl, G. T., Company: *See—*
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Bratton, Francis H.; Fick, Herbert J.; and Mahagnoul, Edward J., 3,534,147.
Buck, Norman R., 3,523,057.
Gagliani, John, 3,505,272.
Marcell, Gerald V.; Reynolds, Harold I.; and Andersen, John W., 3,511,680.
Origer, Terrence,F.; and Fick, Herbert J., 3,508,983.
Reynolds, Harold I., 3,521,629.
Saumsiegle, Robert W., 3,498,868.

Schlabach, Leland A.; and Lesster, Laban E., to Westinghouse Electric Corporation. Inverter apparatus operative with variable input sources. 3,504,266, 3-31-70, Cl. 321-5.

Schlabs, Charles V. Tandem plow packer. 3,539,015, 11-10-70, Cl. 172-202.

Schlachter, Herbert J.: *See—*
Stang, Charles, Jr.; and Schlachter, Herbert J.,3,496,951.

Schladitz, Hermann J. Parallel aligned abrasive filaments in a synthetic resin bond. 3,495,960, 2-17-70, Cl. 51-298.

Schlaefer, Francis W.: *See—*
Nemec, Joseph W.; and Schlaefer, Francis W.,3,527,716.

Schlaefli, Ernst: *See—*
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Schlaeppi, Hans P.: *See—*
Lehman, Meir M.; Rosenfeld, Jack L.; and Schlaeppi, Hans P.,3,528,062.
Lehman, Meir M.; Rosenfeld, Jack L.; and Schlaeppi, Hans P.,3,551,894.

Schlafer, John D.: *See—*
Buhrer, Carl F.; and Schlafer, John D.,3,519,329.

Schlafer, John Flushing: *See—*
Fowler, Vernon J.; Schlafer, John Flushing; and Watson, William R.,3,544,201.

Schlage, Ernest L., to Schlage Lock Company. Lock cylinder unit. 3,492,842, 2-3-70, Cl. 70-369.

Schlage, Ernest L.; and Fu, Peter C., to Schlage Lock Company. Double-acting door pull lock. 3,492,038, 1-27-70, Cl. 292-78.

Schlage, Ernest L.: *See—*
Neary, Ralph E.; and Schlage, Ernest L.,3,550,411.

Schlage Lock Company: *See—*
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Neary, Ralph E.; and Schlage, Ernest L., 3,550,411.
Pollack, Roy L.; and Rowley, David G., 3,546,734.
Schlage, Ernest L.; and Fu, Peter C., 3,492,038.
Schlage, Ernest L., 3,492,842.

Schlaginhaufen, Eric A.; and Goodwin, Andrew W., to Geigy Chemical Corporation. Dyeing cellulosic fibers or blends thereof with a chloro-pyrimidyl reactive dye and a resin bonded pigment in a hydroxyethylcellulose-ethyl acrylate- methylmenthacrylate copolymer or butadiene styrene copolymer dispersion. 3,510,244, 5-5-70, Cl. 8-62.

Schlain, David: *See—*
Andrews, Richard L.; Smith, Gerald R.; Kenahan, Charles B.; and Schlain, David,3,547,789.

Schlamb, Kermit F., to Calgon Corporation, mesne. Methods of binding large pieces of poultry. 3,499,767, 3-10-70, Cl. 99-107.

Schlamb, Kermit F., to Calgon Corporation, mesne. Method of preparing poultry chunks. 3,547,656, 12-15-70, Cl. 99-107.

Schlamb, Kermit F.: *See—*
Mahon, John H.; and Schlamb, Kermit F.,3,551,167.

Schlamp, Herman, to Ronson Corporation. Gas lighter. 3,493,313, 2-3-70, Cl. 431-255.

Schlanger, Benjamin. Methods of cinematography. 3,502,400, 3-24-70, Cl. 352-40.

Schlanger, Samuel L. Safety vehicle. 3,508,783, 4-28-70, Cl. 296-35.

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Schmid, Harman; and Rabus, Friedrich, to Bosch, Robert, G.m.b.H. Temperature sensitive control circuit for internal combustion engines having a fuel injection system. 3,533,381, 10-13-70, Cl. 123-23.

Schmid, Helmut: *See—*
Luck, Wolfhard; Zinz, Bruno; and Schmid, Helmut,3,533,724.

Schmid, Helmut; Luck, Wolfhard; Zinz, Bruno; Komarek, Ernst; and Loderhose, Ernst, to Farbenfabriken Bayer Aktiengesellschaft. Process for the rapid tanning of leather. 3,521,990, 7-28-70, Cl. 8-94.17

Schmid, Hermann, to General Electric Company. Digital filtering of analog signals. 3,515,859, 6-2-70, Cl. 235-150.5

Schmid, Hermann; and Kirbach, Emil, to Daimler-Benz Aktiengesellschaft. Windshield wiper arrangement. 3,487,493, 1-6-70, Cl. 15-250.23

Schmid, Howard C. Electronic soil moisture and temperature sensing device. 3,520,476, 7-14-70, Cl. 239-63.

Schmid, John H.: *See—*
Gidner, Robert R.; and Schmid, John H.,3,540,065.

Schmid, Julius, Inc.: *See—*
Dorfman, Ralph I.; Gut, Marcel; Hagopian, Miasnig; and Loken, Bjarte, 3,488,346.

Schmid, Leopold F., to Teves, Alfred, G.m.b.H., Firma. Body-positioning suspension system for automotive vehicles. 3,542,387, 11-24-70, Cl. 280-6.

Schmid, Leopold Franz, to Teves, Alfred, G.m.b.H. Locking brake for the power train of an automotive vehicle. 3,498,417, 3-3-70, Cl. 188-72.

Schmid, Leopold Franz, to Teves, Alfred, G.m.b.H. Differential handbrake. 3,517,572, 6-30-70, Cl. 74-710.5

Schmid, Leopold. Synchronous universal coupling. 3,520,152, 7-14-70, Cl. 64-21.

Schmid, Manfred: *See—*
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Schmid, Pierre E.; and Nowak, David J., to Allen-Bradley Company. Two amplifier circuit or detecting sine and cosine pulses. 3,497,716, 2-24-70, Cl. 307-210.

Schmid, Pierre E.: *See—*
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Schmid, Richard G.: *See—*
Alexander, Richard L.; Baker, Calvin C.; and Schmid, Richard G.,3,503,486.
Dickinson, George R.; and Schmid, Richard G.,3,528,306.

Schmid, Richard G., to Gulf Oil Corporation. Spring loaded clamp and method of holding intersecting frame members. 3,489,444, 1-13-70, Cl. 287-51.

Schmid, Rolf: *See—*
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Schmidhalter, Beno: *See—*
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Schmidle, Claude J.; and Van Wagenen, Donald, to General Tire & Rubber Company, The. Coating composition, laminate and method for making laminate. 3,531,364, 9-29-70, Cl. 161-88.

Schmidlin, Albertus E., to Singer-General Precision, Inc. Pneumatic pump. 3,508,848, 4-28-70, Cl. 417-395.

Schmidlin, Albertus E.; and Rakowsky, Edward L., to Singer-General Precision, Inc. Angular rate sensor. 3,530,725, 9-29-70, Cl. 73-505.

Schmidlin, Julius; and Ehmann, Ludwig, to Ciba Corporation. 6α,9α-Difluoro-16α-methyl- prednisolone-21-als. 3,519,659, 7-7-70, Cl. 260-397.45

Schmidlin, Julius; and Ehmann, Ludwig, to Ciba Corporation. Aldehydes of the pregnane series and derivatives thereof. 3,519,660, 7-7-70, Cl. 260-397.45

Schmidlin, Raymond J.; and Miller, Donald J., to Addressograph-Multigraph Corporation. Lithographic printing. 3,521,560, 7-21-70, Cl. 101-145.

Schmidlin, Reinhard. Building elements with concealable connecting means and extracting means therefor. 3,516,194, 6-23-70, Cl. 46-26.

Schmidly, James, Jr., to G-C Electronics, Inc. Well pumping control system. 3,509,824, 5-5-70, Cl. 103-25.

Schmidt, Alfred; Weinrotter, Ferdinand; and Muller, Walter, to Osterreichische Stickstoffwerke Aktiengesellschaft. Process for the distillative separation of pure chlorine from a gas mixture containing chlorine, nitrogen dioxide, nitrosyl chloride and oxygen. 3,501,922, 3-24-70, Cl. 62-17.

Schmidt, Alfred: *See—*
Weinrotter, Ferdinand; Schmidt, Alfred; Muller, Walter; and Bohler, Walter,3,497,510.

Schmidt, Arnold W., to Norwood Mills, Inc. Carding head attachment for pile fabric knitting machines. 3,501,812, 3-24-70, Cl. 19-145.7

Schmidt, Arno: *See—*
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Schmidt, Bernd S. Toe toy. 3,501,144, 3-17-70, Cl. 273-1.

Schmidt, Charles C., to Mara, Inc. Toggle link type hand tool. 3,496,808, 2-24-70, Cl. 81-370.

Schmidt, Charles R., to Beckman Instruments, Incorporated. Direct reading electrolytic conductivity analyzer. 3,538,432, 11-3-70, Cl. 324-30.

Schmidt, Christian: *See—*
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Schmidt, Clarence A. Device for producing electrical energy. 3,490,821, 1-20-70, Cl. 310-156.

Schmidt, David, to Sulzer Brothers Limited. CO_2 gas turbine power plant. 3,503,208, 3-31-70, Cl. 60-36.

Schmidt, David, to Sulzer Brothers Limited. Closed-cycle CO_2 gas turbine power plant. 3,512,358, 5-19-70, Cl. 60-36.

Schmidt, Detlev; Zivi, Cacilia; and Alberts, Fritz, to Schill & Seilacher Chemische Fabrik. Method of producing resinous materials from by- products obtained in the refining of petroleum. 3,544,494, 12-1-70, Cl. 260-17.4

Schmidt, Dieter: *See—*
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Schmidt, Don J. Mechanism for surface treating an elongated article. 3,530,526, 9-29-70, Cl. 15-302.

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Flagg, Edward E.; and Schmidt, Donald L.,3,537,826.

Schmidt, Donald L.; and Flagg, Edward E., to Dow Chemical Company, The. Inorganic aluminum-oxygen-phosphorus bond polymers. 3,538,136, 11-3-70, Cl. 260-448.
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Schmidt, Edward: *See—*
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Schmidt, Erich; and Grunwald, Josef, to Maschinenfabrik Zuckermann K.G. Abrading tool. 3,496,685, 2-24-70, Cl. 51-373.

Schmidt, Ernst; and Williams, John, to Firestone Tire & Rubber Company, The. Process for the preparation of a rubber cement from a latex. 3,533,982, 10-13-70, Cl. 260-34.2

Schmidt, Erwin: *See—*
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Schmidt, Erwin, to Cooper Industries, Inc. Tape measure with tape hook bumper spring. 3,521,831, 7-28-70, Cl. 242-84.8

Schmidt, Erwin; Horoldt, Ernst; and Rupp, Walter, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process for the manufacture of spinnable solutions of β-polyamides. 3,549,580, 12-22-70, Cl. 260-30.2

Schmidt, Felix Helmut: *See—*
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Schmidt, Felix Helut: *See—*
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Schmidt, Ferenc J., to General Electric Company. Codeposition of metallics and non-metallics. 3,488,263, 1-6-70, Cl. 204-38.

Schmidt, Ferenc J., to General Electric Company. Electroforming assembly for producing complexly shaped articles. 3,515,662, 6-2-70, Cl. 204-281.

Schmidt, Francis J., to General Electric Company. Control of electrodeposits. 3,502,563, 3-24-70, Cl. 204-299.

Schmidt, Franz; Bogels, Peter Willibrord; and Podest, Germann, to U.S. Philips Corporation, mesne. Tape tension adjusting apparatus. 3,539,129, 11-10-70, Cl. 242-189.

Schmidt, Frederick W. Individual tooth broach. 3,528,154, 9-15-70, Cl. 29-95.1

Schmidt, Frithjof: *See—*
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Schmidt, Gene W., to Pan American Petroleum Corporation. Geochemical prospecting method. 3,524,346, 8-18-70, Cl. 73-153.

Schmidt, George F.; and Sammak, Emil G., to Standard Brands Chemical Industries, Inc. Method for producing modified rubbery latices. 3,531,429, 9-29-70, Cl. 260-29.7

Schmidt, George. Support bracket for electrical fixtures. 3,528,636, 9-15-70, Cl. 248-205.

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Schmidt, Gunther: *See—*
Jannasch, Ulrich; and Schmidt, Gunther,3,544,222.

Schmidt, Gunther, to Gebr. Schmidt. Writing instrument. 3,518,017, 6-30-70, Cl. 401-29.

Schmidt, Gunther, to Bolkow Gesellschaft mit beschrankter Haftung. Liquid fueled rocket engine system. 3,541,793, 11-24-70, Cl. 60-204.

Schmidt, Gunther, to Boehringer Ingelheim G.m.b.H.Amino-substituted dibenz[b,f] [1,4] oxazepin-11(10H)-ones. 3,546,214, 12-8-70, Cl. 260-239.3

Schmidt, Gunther; Machleidt, Hans; and Klupp, Hans, to Boehringer Ingelheim G.m.b.H.10-Substituted dibenz [b,p] [1,4] ones. 3,544,561, 12-1-70, Cl. 260-239.3

Schmidt, Gunther; Machleidt, Hans; and Konigsdorfer, Karl, to Boehringer Ingelheim G.m.b.H.11-substituted 5,11-dihydro-6H-pyrido [2,3-6] [1,4] benzodiazepin-6-ones. 3,539,554, 11-10-70, Cl. 260-239.3

Schmidt, Hans, to Hommelwerke Gesellschaft mit beschrankter Haftung. Shape grinding machine with dual optical devices. 3,507,075, 4-21-70, Cl. 51-165.

Schmidt, Harald: *See—*
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Keznickl, Eduard; Broeckl, Heinz Wilhelm; Valoh, Alfons; Schmidt, Harald; and Drahonovsky, Michael,3,542,310.

Schmidt, Heinrich F.: *See—*
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Schmidt, Heinz: *See—*
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Lindner, Helmut; Hoyer, Ernst; and Schmidt, Heinz,3,549,613.

Schmidt, Helmuth T. Dispenser. 3,540,631, 11-17-70, Cl. 222-81.

Schmidt, Helmut, to Bergwerksverband GmbH. Logical switching systems. 3,507,122, 4-21-70, Cl. 61-45.

Schmidt, Helmut, to Bergwerksverband GmbH. Automatic control systems for use in longwall mine workings. 3,531,159, 9-29-70, Cl. 299-1.

Schmidt, Henry, Jr., to Industrial Filter & Pump Mfg. Co. Filter construction. 3,543,940, 12-1-70, Cl. 210-490.

Schmidt, Hermann: *See—*
Benteler, Erich; Schmidt, Hermann; Schmidt, Wilhelm; and Beermann, Wilhelm,3,516,483.

Schmidt, Horst, to Leitz, Ernst, G.m.b.H. Lens system for positioning an image recorder remotely from an aperture. 3,516,734, 6-23-70, Cl. 350-216.

Schmidt, Horst, to Leitz, Ernst, G.m.b.H. Combined day and night viewing telescope. 3,529,882, 9-22-70, Cl. 350-2.

Schmidt, Horst, to Leitz, Ernst, G.m.b.H. Intermediate image forming system for telescope. 3,532,416, 10-6-70, Cl. 350-215.

Schmidt, Howard A.: *See—*
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Schmidt, Jack W.; and Cress, Vernor B., Jr., to Tamar Electronics Industries, Inc. Fixed timing traffic control system. 3,525,980, 8-25-70, Cl. 340-41.

Schmidt, Jack W.; Tuck, Robert M.; and Phillips, William V., to General Motors Corporation. Angle input power transmission. 3,543,607, 12-1-70, Cl. 74-688.

Schmidt, Jack W.; Tuck, Robert M.; and Smith, Marion D., to General Motors Corporation. Angle input power transmission. 3,545,304, 12-8-70, Cl. 74-759.

Schmidt, Jacob, to Lockheed Aircraft Corporation. Antinode weight assembly for rotor blades. 3,508,843, 4-28-70, Cl. 416-144.

Schmidt, Jacob; Baumstein, Lee; and James, Arthur M., to Lockheed Aircraft Corporation. Helicopter rotor system. 3,518,025, 6-30-70, Cl. 416-131.

Schmidt, James H.; and Hedstrom, Warren W., to Sheridan-Gray, Inc. Hot-forming press. 3,528,276, 9-15-70, Cl. 72-342.

Schmidt, James H.: *See—*
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Schmidt, Joachim: *See—*
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Schmidt, John, Jr., to Guardian Electric Manufacturing Co. Silver rhenium electric contacts. 3,511,953, 5-12-70, Cl. 200-166.

Schmidt, John; and Kamins, Seymour, to CTP Industries, Inc. Bag and carrying and closure means therefor. 3,495,763, 2-17-70, Cl. 229-54.

Schmidt, Jorn Marius, to Danfoss A/S. Thermostatic actuator chargeable by ampoule therein. 3,494,197, 2-10-70, Cl. 73-368.7

Schmidt, Julia. Coin operated hair drying apparatus. 3,522,869, 8-4-70, Cl. 194-18.

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Scheufler, Roland, 3,500,797.

Schmidt, Karl Gunther; Mohr, Gunther; Lust, Sigmund; and Schneider, Gerhart, to Merck, E., A.G. Halomethylmercapto-fluorenimines. 3,491,145, 1-20-70, Cl. 260-551.

Schmidt, Karl Gunther; Mohr, Gunther; Lust, Sigmund; and Wirtz, Walter, to Merck, E., A.G. Isothiazole derivatives. 3,541,108, 11-17-70, Cl. 260-306.8

Schmidt, Karl Heinz; and Bildat, Benno, to Bosch, Robert, G.m.b.H. Gear-clutch-brake-motor controls for synchronized shifting. 3,548,980, 12-22-70, Cl. 192-0.09

Schmidt, Karl-Julius; Hammann, Ingeborg; and Unterstenhofer, Gunter, to Farbenfabriken Bayer Aktiengesellschaft. Phosphoric (-phosphonic) and thiono-phosphoric (-phosphonic) acid esters. 3,510,484, 5-5-70, Cl. 260-248.

Schmidt, Karl-Julius; Steinfatt, Fritz; and Schrader, Gerhard, to Farbenfabriken Bayer Aktiengesellschaft. Antimicrobial agents. 3,493,658, 2-3-70, Cl. 424-267.

Schmidt, Klaus D.; and Robinson, Merritt A., to Kimball-Schmidt, Inc. Fiber glass ski with channel construction. 3,503,621, 3-31-70, Cl. 280-11.13

Schmidt, Klaus H., to United States of America, Atomic Energy Commission. Calorimetric method of measuring radiation by solution conductivity change. 3,489,899, 1-13-70, Cl. 250-83.

Schmidt, Klaus H.: *See—*
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Schmidt, Lawrence D., to Allied Chemical Corporation. Charging of preheated coal into the coking chambers of a coke oven battery. 3,523,065, 8-4-70, Cl. 201-40.

Schmidt, Lawrence D., to Allied Chemical Corporation. Charging coke oven with hot coarsely comminuted coal. 3,537,755, 11-3-70, Cl. 302-24.

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Schmidt, Oskar: *See—*
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Schmidt, Oswald, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Simultaneous dyeing and bleaching of proteinaceous fibrous material. 3,551,087, 12-29-70, Cl. 8-19.

Schmidt, Otfried; Neumann, Friedmund; and Wiechert, Rudolf, to Schering AG. Method of preparing 15, 16 -methylene-testosterone and esters thereof. 3,525,757, 8-25-70, Cl. 260-397.4

Schmidt, Otto K.: *See—*
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Schmidt, Paul E., to Standard Oil Company (Indiana). Manufacturing a partially foamed, foamable thermoplastic container. 3,505,435, 4-7-70, Cl. 264-41.

Schmidt, Paul F., to Bell Telephone Laboratories, Incorporated. Plasma deposition of oxide coatings on silicon and electron bombardment of portions thereof to be etched selectively. 3,536,547, 10-27-70, Cl. 156-17.

Schmidt, Paul R.: *See—*
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Schmidt, Paul, to Tracto Technik Paul Schmidt. Device for extracting piles or the like. 3,511,325, 5-12-70, Cl. 173-131.

Schmidt, Paul; and Wilhelm, Max, to Ciba Corporation. 5-Nitro-2-thiazolyl-oxamides. 3,538,089, 11-3-70, Cl. 260-243.

Schmidt, Paul; Wilhelm, Max; and Eichenberger, Kurt, to Ciba Corporation. Ethano-anthracenes. 3,489,799, 1-13-70, Cl. 260-562.

Schmidt, Paul; Wilhelm, Max; and Eichenberger, Kurt, to Ciba Corporation. N-chloro-aliphatic-N'-(5-nitrothiazolyl)-ureas and cyclized compounds thereof. 3,503,989, 3-31-70, Cl. 260-306.8

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Schmidt, Peter, to International Standard Electric Corporation. Cathode ray tube with metallic tensioning ribbon for implosion protection. 3,510,589, 5-5-70, Cl. 178-7.82

Schmidt, Peter, to Bosch, Robert, G.m.b.H. Fuel injection control arrangement for internal combustion engines. 3,521,606, 7-28-70, Cl. 123-32.

Schmidt, Peter, to Hoesch Aktiengesellschaft. Pneumatic shock absorber arrangement. 3,524,634, 8-18-70, Cl. 267-65.

Schmidt, Philipp, to NSU Motorenwerke Aktiengesellschaft. Motor vehicle steering mechanism. 3,540,754, 11-17-70, Cl. 280-96.

Schmidt, Raymond F. Electrical switch device. 3,506,795, 4-14-70, Cl. 200-5.

Schmidt, Reinhold. Rotary-piston engine. 3,518,975, 7-7-70, Cl. 123-12.

Schmidt, Richard F., to United States of America, National Aeronautics and Space Administration. Electronic scanning of 2-channel monopulse patterns. 3,540,050, 11-10-70, Cl. 343-100.

Schmidt, Richard Q.: *See—*
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Schmidt, Richard, to Morat, Franz, G.m.b.H. Yarn changing and feeding arrangement for circular knitting machines. 3,500,663, 3-17-70, Cl. 66-139.

Schmidt, Richard. Multiple speed internal gear transmission. 3,505,893, 4-14-70, Cl. 74-325.

Schmidt, Richard, to Morat, Franz, G.m.b.H. Transporting arrangement for different yarns. 3,528,622, 9-15-70, Cl. 242-47.01

Schmidt, Richard, to Proctor Paint and Varnish Co., Inc. Apparatus and method for filling a container with liquid. 3,536,925, 10-27-70, Cl. 250-218.

Schmidt, Richard; and Schmidt, Gerhard, to Morat, Franz, GmbH. Knitting machine with slide latch needles controlled by jacks. 3,535,892, 10-27-70, Cl. 66-13.

Schmidt, Robert O. Three-step chair. 3,530,954, 9-29-70, Cl. 182-33.

Schmidt, Robert T.; and Sicheneder, Frederick J., to Medical Dynamics Corporation. Ball type positioning component. 3,519,236, 7-7-70, Cl. 248-181.

Schmidt, Roger M.; and Truskolaski, Bernard S., to Minnesota Mining and Manufacturing Company. Decorative ribbon and bow. 3,539,431, 11-10-70, Cl. 161-9.

Schmidt, Roger N., to Honeywell Inc. Variable thermal conductance devices. 3,519,067, 7-7-70, Cl. 165-32.

Schmidt, Rolf; Schnoring, Hildegard; Von Rintelen, Harald; and Schranz, Karl-Wilhelm, to Agfa-Gevaert Aktiengesellschaft. Apparatus for image transfer photography. 3,521,541, 7-21-70, Cl. 95-13.

Schmidt, Ronald G., to Honeywell Inc. Photographic flashgun. 3,544,781, 12-1-70, Cl. 240-1.3

Schmidt, Siegfried, to U.S. Philips Corporation, mesne. Punching device comprising matices having aperture combinations. 3,538,308, 11-3-70, Cl. 219-384.

Schmidt, Siegfried: *See—*
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Schmidt, Theodore G. Educational art device. 3,492,743, 2-3-70, Cl. 35-26.

Schmidt, Thomas Joachim, to Supfina, Wieck & Hentzen. Apparatus for the precision machining of annular workpieces. 3,503,154, 3-31-70, Cl. 51-58.

Schmidt, Thomas R.: *See—*
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Rahman, Abdul; and Schmidt, Thomas R.,3,535,127.

Schmidt-Tiedeman, Karl Joachim, to U.S. Philips Corporation, mesne. Modulators for electromagnetic radiation by double refraction. 3,503,667, 3-31-70, Cl. 350-149.

Schmidt, Uwe J., to Bunker-Ramo Corporation, The, mesne. Digit light deflector. 3,508,808, 4-28-70, Cl. 350-150.

Schmidt, Uwe J.; and Jones, Roy E., to TRW Inc. Laser cavity for selectively deflecting the output beam parallel to its axis. 3,493,887, 2-3-70, Cl. 331-94.5

Schmidt, Uwe J.: *See—*
Kaufman, Irving; Oltman, Henry G., Jr.; and Schmidt, Uwe J.,3,493,288.
Duinker, Simon; and Schmidt, Uwe,3,504,958.

Schmidt, Uwe, to U.S. Philips Corporation, mesne. Reflector for digital light deflectors. 3,540,801, 11-17-70, Cl. 350-286.

Schmidt, Uwe; and Schmidt-Tiedeman, Karl Joachim, to U.S. Philips Corporation, mesne. Device for measuring and recording respectively the light radiation reflected from individual points of an object. 3,499,162, 3-3-70, Cl. 250-225.

Schmidt, Uwe; and Schmidt-Tiedemann, Karl Joachim, to U.S. Philips Corporation, mesne. Optical digital deflection device for scanning an object like a camera. 3,495,091, 2-10-70, Cl. 250-225.

Schmidt, Uwe; and Schmidt-Tiedemann, Karl Joachim, to U.S. Philips Corporation, mesne. Arrangement for reducing the stray light in digital light deflecting systems. 3,535,020, 10-20-70, Cl. 350-150.

Schmidt, Vernon E., to Goodyear Aerospace Corporation. Digital to analog converter. 3,509,556, 4-28-70, Cl. 340-347.

Schmidt, Walther, to Reynolds Metals Company. Condensation of magnesium vapors. 3,505,063, 4-7-70, Cl. 75-67.

Schmidt, Walther, to Reynolds Metals Company. Metallic article. 3,510,277, 5-5-70, Cl. 29-183.5

Schmidt, Warren J.; and Lenehan, Bernard E., to Westinghouse Electric Corporation. Single element measuring device and transducer for measuring polyphase power. 3,497,804, 2-24-70, Cl. 324-107.

Schmidt, Werner, to Maschinenfabrik Rissen G.m.b.H. Apparatus for sealing the longitudinal seam of overlapping ends of blanks for container sides of paper. 3,505,933, 4-14-70, Cl. 93-79.

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Sarnezki, Herbert; and Schmidt, Werner,3,538,367.

Schmidt, Wilfried: *See—*
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Schmidt, Wilhelm E.A.: *See—*
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Schneider, Robert A., to Bell & Howell Company. Method for making an improved high frequency signal head for magnetic storage medium. 3,516,153, 6-23-70, Cl. 29-603.

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Schnell, Hermann; Bottenbruch, Ludwig; Weirauch, Kurt; Hechelhammer, Wilhelm; Streib, Hugo; and Fritz, Gerhard, to Farbenfabriken Bayer Aktiengesellschaft. Process for the production of thermoplastic polycarbonates. 3,544,514, 12-1-70, Cl. 260-47.

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Kaliwoda, Karl; Schuran, Walter; and Everhartz, Heinrich,3,522,688.

Schurch, Richard C., to Bathey Manufacturing Company. Container base construction. 3,533,361, 10-13-70, Cl. 108-53.

Schurhoff, Heinrich, to Koppers Company, Inc., mesne. Method for monitoring the heating of coke ovens in relation to a pushing sequence. 3,491,356, 1-20-70, Cl. 340-419.

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Schurman, Peter T. Container with composite cover. 3,524,564, 8-18-70, Cl. 220-16.

Schurman, Peter T.; and Confer, Raymond C., to Grace, W. R., & Co. Plastic container and blow molding method. 3,536,435, 10-27-70, Cl. 150-0.5

Schurmann, Werner, to Mettler Instruments AG. Counter storage and visual readout means. 3,518,412, 6-30-70, Cl. 235-92.

Schurr, Charles Allan, to Square D Company. Current-sensing time-limit motor acceleration relay. 3,506,938, 4-14-70, Cl. 335-63.

Schurr, Charles Allan: *See—*
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Schurz Controls Corporation: *See—*
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Schussler, Ludwig; and Folta, Werner, to Schloemann Aktiengesellschaft. Manipulators. 3,498,490, 3-3-70, Cl. 214-652.

Schustack, Edward H. Method of assembling pipe couplings. 3,487,534, 1-6-70, Cl. 29-450.

Schuster, Donald H. Driver training and testing equipment. 3,523,374, 8-11-70, Cl. 35-11.

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Schuster, Gerhard. Poultry picking machine. 3,524,217, 8-18-70, Cl. 17-11.1

Schuster, Karl; and Schneider, Karlheinz, to Benckiser, Joh. A., G.m.b.H. Chemische Fabrik. Process of dyeing polyester fibers and products. 3,520,007, 7-14-70, Cl. 8-171.

Schuster, Louis Frederick, Jr.: *See—*
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Schuster, Ludwig K.; and Tongyai, Singkata, to Pennwalt Corporation. Coating cementitious articles. 3,516,847, 6-23-70, Cl. 117-46.

Schuster, Ludwig: *See—*
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Schuster, Michael M.; and Hatter, Edwin E., to Hi-Shear Corporation. Inherently torque-limited bolt having removal means. 3,498,174, 3-3-70, Cl. 85-61.

Schuster, Nick A., to Schlumberger Technology Corporation. Apparatus for investigating formations surrounding a borehole including means for generating opposite polarity current flow on opposite sides of the borehole. 3,493,850, 2-3-70, Cl. 324-6.

Schuster, Nick A., to Schlumberger Technology Corporation. Control apparatus for selectively operating electrical well-completion devices. 3,517,758, 6-30-70, Cl. 175-4.55

Schuster, Nick A., to Schlumberger Limited: Multiple detector neutron logging apparatus. 3,546,454, 12-8-70, Cl. 250-83.1

Schuster, Robert W. Fuel control for a gas turbine engine. 3,500,638, 3-17-70, Cl. 60-39.28

Schuster, Robert W., to Bendix Corporation, The. Control apparatus for equalizing and/or limiting an engine operating condition of a plurality of gas turbine engines. 3,526,091, 9-1-70, Cl. 60-39.16

Schuster, Robert: *See—*
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Schuster, Wilhelm. Resilient support. 3,490,084, 1-20-70, Cl. 5-351.

Schuster, Wilhelm. Resilient support. 3,492,768, 2-3-70, Cl. 52-98.

Schuster, Wilhelm, to Industrie-Werke Karlsruhe Aktiengesellschaft. Device for feeding brochures. 3,524,530, 8-18-70, Cl. 198-25.

Schuster, Wilhelm, to Industrie-Werke Karlsruhe Aktiengesellschaft. Device for transferring folding boxes to the conveyor of a packaging machine. 3,533,334, 10-13-70, Cl. 93-53.

Schuster, William Daniel: *See—*
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Schut, Robert Norman, to Miles Laboratories, Inc.Certain octahydro-1,12-trimethyleneindolo [2,3-α] quinolizines. 3,499,890, 3-10-70, Cl. 260-239.3

Schut, Robert Norman, to Miles Laboratories, Inc.Cyanoethylated derivatives of 2,3,4,6,7,12- hexahydroindolo[2,3-α]-quinolizine. 3,536,725, 10-27-70, Cl. 260-294.9

Schut, Robert Norman, to Miles Laboratories, Inc.Certain hexahydro-1,12-trimethyleneindolo[2,3-a]- quinolizines. 3,542,796, 11-24-70, Cl. 260-295.

Schut, Robert Norman; and Havera, Herbert John, to Miles Laboratories, Inc. Process for preparation of piperazyl alkyl derivatives of tetrazoles. 3,499,900, 3-10-70, Cl. 260-268.

Schut, Robert Norman; and Ward, Frederick Edmund, to Miles Laboratories, Inc. Certain substituted 3-(2-indolyl)-1,2,5,6-tetrahydropyridines and derivatives thereof. 3,501,484, 3-17-70, Cl. 260-295.

Schutt, Hans U., to Shell Oil Company. Pretreatment of hydroconversion catalysts. 3,519,556, 7-7-70, Cl. 208-111.

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Schutt, John B.; and Stuart, John W., to United States of America, National Aeronautics and Space Administration. Fire resistant coating composition. 3,493,401, 2-3-70, Cl. 106-15.

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Schutt, Paul F., to Babcock & Wilcox Company, The. Thermionic converter. 3,534,202, 10-13-70, Cl. 310-4.

Schutt, Wilhelm H., to Prontor-Werk Alfred Gauthier, G.m.b.H. Loading device for machine tools. 3,500,986, 3-17-70, Cl. 198-33.

Schutte, Richard W.; and Roberts, Clifford J., Jr., to Scott Paper Company. Laminated sheet material and methods of making such material. 3,530,023, 9-22-70, Cl. 156-290.

Schutten, Maarten, to Koninklijke Zwavelzuurfabrieken v/h Ketjen N.V. Process for reducing the loss due to abrasion of alumina extrudates and of extruded catalysts based on alumina. 3,551,354, 12-29-70, Cl. 252-466.

Schutterop, Lambert Johan Nicolaas: *See—*
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Schutz, Manfred, to Bolkow Gesellschaft mit beschrankter Haftung. Liquid fuel rocket engine. 3,515,040, 6-2-70, Cl. 60-39.74

Schutz, Manfred, to Bolkow Gesellschaft mit beschrankter Haftung. Nozzle construction and liquid fuel rocket fuel system. 3,541,788, 11-24-70, Cl. 60-39.09

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Schutze, Ernst-Christian; Hornung, Karl-Heinz; and Nehring, Rudolf, to Chemische Werke Huls Aktiengesellschaft. Hard-elastic and impact-resistant coatings. 3,544,657, 12-1-70, Cl. 260-850.

Schutze, Ernst-Christian; Hornung, Karl-Heinz; and Nehring, Rudolf, to Chemische Werke Huls Aktiengesellschaft. Coatings based on polycarbonates condensed with trifunctional isocyanates. 3,547,889, 12-15-70, Cl. 260-75.

Schutze, Ernst-Christian: *See—*
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Schutze, Henry G.; and Bown, Delos E., to Esso Research and Engineering Company. Sulfur containing carboxylic acid esters. 3,494,947, 2-10-70, Cl. 260-481.

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Schuur, Gerrit; and Breukink, Carel J., to Shell Oil Company. Method of producing a laminated foamed thermoplastic sheet. 3,551,243, 12-29-70, Cl. 156-244.

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Schwaar, Robert H.; and Foster, E. Gordon, to Shell Oil Company. Polymerization process. 3,502,633, 3-24-70, Cl. 260-93.7

Schwab, Delmar G., to Hyster Company. Cooling system for lift trucks. 3,540,540, 11-17-70, Cl. 180-68.

Schwab, Delmar G., to Hyster Company. Hydrostatic transmission with pressure control. 3,543,508, 12-1-70, Cl. 60-19.

Schwab, Helmut; and Beale, Stanley E., to Scanbe Manufacturing Corporation. Microcircuit hardware. 3,510,828, 5-5-70, Cl. 339-174.

Schwab, Louis. Self-sealing and self-holding filter frame. 3,538,686, 11-10-70, Cl. 55-377.

Schwab, Peter A., to Teknor Apex Company, mesne. Epoxy stabilizer in poly(vinyl chloride) resins. 3,499,866, 3-10-70, Cl. 260-45.8

Schwab, Peter A.; and Sorenson, Wayne R. Preparation of cyclic ether graft copolymers. 3,544,659, 12-1-70, Cl. 260-874.

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Schwab, Pierre P., to McGraw-Edison Company. Centrifugal switch with normally closed contacts. 3,527,907, 9-8-70, Cl. 200-80.

Schwab, Pierre P., to McGraw-Edison Company. Reversible stepping switch. 3,544,748, 12-1-70, Cl. 200-156.

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Schwake, Paul; and Bruder, Alfred, to Haver & Boecker. Apparatus for filling bags with preweighed quantities of materials. 3,498,344, 3-3-70, Cl. 141-317.

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Schwall, Donald V.; Rogers, Alan B.; and Corbin, Dennis, to Armour and Company. Process of preparing a self-basting poultry product. 3,528,820, 9-15-70, Cl. 99-107.

Schwaller, Bernard L. Dual stage compressor spring. 3,507,486, 4-21-70, Cl. 267-1.

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Schwalm, Bruce D.; Hudson, Earl A.; and Lausch, Henry N., to Sperry Rand Corporation. Drive system for pull-type mower-conditioner. 3,535,860, 10-27-70, Cl. 56-23.

Schwalm, Bruce D.: *See—*
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Schwalm, Wilhelm, to Vickers-Zimmer Aktiengesellschaft, Planung und Bau von Industrieanlagen. Worm melter and extruder. 3,496,604, 2-24-70, Cl. 18-12.

Schwander, Hans Rudolf, to Geigy, J. R., A.G. Anthraquinone dyestuffs. 3,519,656, 7-7-70, Cl. 260-372.

Schwander, Hans-Rudolf; Jung, Jean-Pierre; and Hindermann, Peter, to Geigy, J. R., A.G.Sulfonated 1-amino-4-(2',5'-dimethylanilino)-2-phenoxy-anthraquinones with a chloroacetylaminomethyl group. 3,491,125, 1-20-70, Cl. 260-372.

Schwander, Hans Rudolf; Zenhausern, Anton; and Hindermann, Peter, to Geigy, J. R., A.G. Sulfonated 1-alkylamino-4-tolylamino-anthraquinones. 3,491,126, 1-20-70, Cl. 260-374.

Schwander, Hans Rudolf; Zenhausern, Anton; and Hindermann, Peter, to Geigy, J. R., A.G. Sulfonated 1-alkylamino-4-acylaminomethylaralkyl- amino-anthraquinones. 3,499,915, 3-10-70, Cl. 260-372.

Schwander, Hans Rudolf; Zenhausern, Anton; and Hindermann, Peter, to Geigy, J. R., A.G. Anthraquinone dyes. 3,538,127, 11-3-70, Cl. 260-372.

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Schwartz, Alfred H., to Varian Associates. Arc lamp having acceleration actuated ignition means. 3,527,983, 9-8-70, Cl. 315-357.

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Schwartz, Arthur. Electrically operated toy worm. 3,490,172, 1-20-70, Cl. 46-226.

Schwartz, Arthur. Electric iron and safety device therefor. 3,492,459, 1-27-70, Cl. 219-251.

Schwartz, Bernard L.: *See—*
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Schwartz, Edmund I., to Threshold Electric Research, a division of Slant/Fin Corporation. Oscillator with digital counter frequency control circuits. 3,488,605, 1-6-70, Cl. 331-17.

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Schwartz, Harold A., to Avisun Corporation, mesne. Method of bonding overlapping pieces of oriented plastic having low power factor losses. 3,535,184, 10-20-70, Cl. 156-273.
Schwartz, Harold O.; Machanian, William V.; and Barry, Robert D., to Wurlitzer Company, The. Electronic organ diode keying circuit. 3,544,698, 12-1-70, Cl. 84-1.26
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Schwartz, Harold S., to Potter Instrument Company, Inc. Circuit for energizing electromagnetic operated hammers in a high speed impact printer. 3,519,893, 7-7-70, Cl. 317-148.5
Schwartz, Herbert; and Skaptason, Joseph B. Novel tetrahydrophthalamic acids and derivatives thereof. 3,507,904, 4-21-70, Cl. 260-471.
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Schwartz, James W., to National Video Corporation. Method and means for producing color television picture tubes. 3,494,267, 2-10-70, Cl. 95-1.
Schwartz, James W., to National Video Corporation. Apparatus for correcting vertical drift in color television index tube. 3,501,583, 3-17-70, Cl. 178-5.4
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Schwartz, Norbert C., to Miller, R. H., Company, Inc. Complex esters produced by reacting a dicarboxylic acid, a polyhydric alcohol and boric acid. 3,544,614, 12-1-70, Cl. 260-462.
Schwartz, Norbert; Richards, James F.; and Pistell, Joseph F., to Pennwalt Corporation. Metal working lubricants. 3,551,335, 12-29-70, Cl. 252-34.7
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Schwartz, Robert J., to Schlumberger Technology Corporation. Electrical apparatus for well tools. 3,490,286, 1-20-70, Cl. 73-362.
Schwartz, Robert J., to Schlumberger Technology Corporation. Pile-up discrimination technique. 3,525,047, 8-18-70, Cl. 328-114.
Schwartz, Robert J., to Schlumberger Technology Corporation. Method and apparatus for sonic dip measurement. 3,526,874, 9-1-70, Cl. 340-15.5
Schwartz, Robert; Schwartz, Marvin; and Zussman, Ronald, to United States of America, Navy. Magnetic tape tester in which, after comparison with a standard, an erroneous signal is stored for later analysis. 3,517,305, 6-23-70, Cl. 324-34.
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Schwartz, Seymour I.; and Wingrove, Robert C., said Wingrove, Robert C., assor. to Medtronic, Inc. Implantable nerve stimulator and method of use. 3,522,811, 8-4-70, Cl. 128-419.
Schwartz, Seymour S., to United States of America, Air Force. Self sealing space suit. 3,536,576, 10-27-70, Cl. 161-161.
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Schwartz, Sidney J., to National Cash Register Company, The. Magnetic storage device having a rippled magnetization pattern and periodic edge discontinuties. 3,540,020, 11-17-70, Cl. 340-174.
Schwartz, Walter M., Jr.; Turner, Charles R.; and Manship, Luther P., to Proctor-Silex Incorporated. Percolator. 3,535,493, 10-20-70, Cl. 219-441.
Schwartz, William H., to Lester Engineering Company. Injection molding machine. 3,526,931, 9-8-70, Cl. 18-30.
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Schwartzman, Everett H. Fluid flow transducer. 3,494,190, 2-10-70, Cl. 73-228.
Schwartzman, Everett H. Flowmeter apparatus. 3,528,289, 9-15-70, Cl. 73-213.
Schwartzman, Gilbert. Aerosol product residue eliminator. 3,490,658, 1-20-70, Cl. 222-402.12
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Scoggin, Jack S., to Phillips Petroleum Company. Block copolymers prepared by feeding batch prepolymer into a continuous reactor. 3,525,781, 8-25-70, Cl. 260-878.
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Scott, Arthur L., to C/P Corporation. Threaded plastic member with a reinforced thread. 3,495,494, 2-17-70, Cl. 85-1.
Scott, Calvin Lee. Pneumatic conveyor and dust separator systems. 3,494,460, 2-10-70, Cl. 209-36.
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Scott, Joseph H., Jr., to RCA Corporation. Variable threshold level field effect memory device. 3,549,911, 12-22-70, Cl. 307-279.

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Scott, Lyle B., to Jackson, Byron, Inc. Well packer and anchor means therefor. 3,526,277, 9-1-70, Cl. 166-121.

Scott, Lyle B., to Jackson, Byron, Inc. High volume main valve for formation testers. 3,526,278, 9-1-70, Cl. 166-152.

Scott, Lyle B., to Jackson, Byron, Inc. Cementing plug launching apparatus. 3,545,542, 12-8-70, Cl. 166-155.

Scott, Mertz O., to Ameron Incorporated, mesne. Multiple section pole. 3,541,746, 11-24-70, Cl. 52-127.

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Scott, Paul R.; and Christensen, Richard E., to Shell Oil Company. Fluid recovery from underground formations using supersaturated gypsum solutions. 3,515,215, 6-2-70, Cl. 166-274.

Scott, Paul R.; and Christensen, Richard E., to Shell Oil Company. Control of gypsum deposits from supersaturated gypsum solutions. 3,525,349, 8-25-70, Cl. 137-1.

Scott, Peter H.; and Hooks, Haywood, Jr., to Olin Corporation. Process for preparing aromatic isothiocyanates from aromatic nitro compounds. 3,535,364, 10-20-70, Cl. 260-454.

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Scott, Richard, to Church & Dwight Limited. Match book-type package. 3,542,191, 11-24-70, Cl. 206-56.
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Scott, Robert J., to Rival Manufacturing Company. Can opener with removable hand lever and lever adjusting means. 3,508,331, 4-28-70, Cl. 30-4.

Scott, Robert J., to Rival Manufacturing Company. Removable hand lever construction. 3,520,056, 7-14-70, Cl. 30-4.

Scott, Robert N.; and White, Robert L., to General Motors Corporation. Suspension actuated vehicle leveling system. 3,527,467, 9-8-70, Cl. 280-6.

Scott, Robert S. Collapsible agility climber. 3,547,435, 12-15-70, Cl. 272-60.

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Scott, Sidney R.; and Light, Glen W. Drafting tool. 3,515,065, 6-2-70, Cl. 101-368.

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Scott, Warren Farrar; and McPherson, William W., to Roberts Consolidated Industries, Inc. Loop pile carpet cutter. 3,543,400, 12-1-70, Cl. 30-280.

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Scott, William H.; and Smith, Earl F., to Murphy, G. W., Industries, Inc. Dual motion surface dressing machine. 3,543,449, 12-1-70, Cl. 51-170.

Scott, William James, to VSI Corporation. Flareless connection and sealing element for such a connection. 3,521,915, 7-28-70, Cl. 285-341.

Scott, William J., to Ideal Industries, Inc. Fish tape reel with staggered tape engaging lips. 3,528,644, 9-15-70, Cl. 254-134.3

Scott, William W., to Aerotron, Inc. Linear cable sheath cutter. 3,537,349, 11-3-70, Cl. 83-431.

Scott, William W., to Aerotron, Inc. Cable sheath cutter. 3,537,350, 11-3-70, Cl. 83-439.

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Scourtes, George, to Cox Instruments Division Lynch Corporation. Frequency measuring system employing feedback network to provide linear DC output from inherent non-linearity of system. 3,497,719, 2-24-70, Cl. 307-233.

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Scow, Kenneth B.; Anderson, Joseph P.; and Bertelsen, Bruce I., to International Business Machines Corporation. Thin films with inherent NDRO properties and their production. 3,492,158, 1-27-70, Cl. 117-236.

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Scragg, Frederick; Parker, Walter; Evans, Alan Herbert; and Ernst, Walter Edouard, to Scragg, Ernest, & Sons Limited. Continuous yard winding machine. 3,507,453, 4-21-70, Cl. 242-18.

Scranton, Robert J., to Addressograph-Multigraph Corporation. Punch for telephone dial cards and the like. 3,508,705, 4-28-70, Cl. 234-51.

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Scriabine, Igor, to Rhone-Poulenc S.A. Aldehydes useful in perfumery. 3,548,006, 12-15-70, Cl. 260-599.

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Scribner, Richard M., to Du Pont de Nemours, E. I., and Company. Esters of testosterone and selected derivatives thereof with bicyclo[2.2.2.]octane-1-and- octene-1-carboxylic acid. 3,515,720, 6-2-70, Cl. 260-239.55

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Scroggs, Virgil H. Anthelmintic compositions. 3,489,835, 1-13-70, Cl. 424-127.

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Scruby, Stanley R.; and House, John E., Jr., to Demco Electrical Controls, Inc. Measuring device. 3,519,094, 7-7-70, Cl. 177-1.

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Scudder, James F.; and Mindler, Frederic A., to Eastman Kodak Company. Photographic camera with retractile lens housing. 3,504,605, 4-7-70, Cl. 95-11.

Scullin, James P., to Tenneco Chemicals, Inc. Stabilized vinyl halide resin compositions. 3,533,975, 10-13-70, Cl. 260-23.

Scully, Andrew J., to United States of America, Army. Track tension overload device. 3,539,229, 11-10-70, Cl. 305-10.

Scully, John W., to Pneumatic Scale Corporation. Container forming machine. 3,492,189, 1-27-70, Cl. 156-519.

Sczerba, Stanley T., to Koppers Company, Inc. Scrap preheating and charging apparatus. 3,520,523, 7-14-70, Cl. 266-13.

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Seaberg, David H., to Case, J. I., Company. Anti-rollback mechanism. 3,539,068, 11-10-70, Cl. 214-764.
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Seaborn, Paul E., to FMC Corporation. Method of and device for detecting cracks in eggs. 3,503,501, 3-31-70, Cl. 209-111.9
Seaborn, Paul E., to FMC Corporation. Method for detecting object in translucent substance and device therefor. 3,515,273, 6-2-70, Cl. 209-111.7
Seaborne, Thomas Leslie. Milk flow indicator for milking machines. 3,487,809, 1-6-70, Cl. 116-117.
Seaborne, Thomas Leslie. Milk meter for milking machine. 3,512,411, 5-19-70, Cl. 73-202.
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Seabury, Richard W., Jr., to RFL Industries, Inc. Indicating instrument having a heater coil immersed in a fluid. 3,548,308, 12-15-70, Cl. 324-106.
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Seager, George Cresswell, to British Aluminium Company Limited, The. Electrolytic cells and methods of operating same. 3,492,208, 1-27-70, Cl. 204-67.
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McIntire, Hoy O.; Hunter, Harvey H.; Seale, Clifford L.; and Flora, John H.,3,488,576.
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Searcy, Ronald L., to Hoffman-La Roche Inc. Color developing composition consisting of an enzyme, a salicylate and a hypochlorite donor. 3,542,649, 11-24-70, Cl. 195-103.5
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Sears, James Kern, to Monsanto Company. Resins plasticized with esters of hippuric acid. 3,540,904, 11-17-70, Cl. 106-178.
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Sears, James Kern, to Monsanto Company. Plasticized resin compositions containing esters of O-carboxyhippuric acid. 3,547,667, 12-15-70, Cl. 106-182.
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Seay, Perry A., to Dynamics Corporation of America. Apparatus for controlling the speed of a moving body. 3,549,880, 12-22-70, Cl. 246-182.
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Seeler, Henry W., deceased (by Seeler, Gerda A.; executrix). Valve assembly. 3,518,989, 7-7-70, Cl. 128-145.5

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Seidel, Harold, to Bell Telephone Laboratories, Incorporated. Emitter-follower and cathode-follower amplifiers. 3,534,283, 10-13-70, Cl. 330-157.

Seidel, Harold, to Bell Telephone Laboratories, Incorporated. Almost-coherent phase detection. 3,539,925, 11-10-70, Cl. 325-65.

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Seney, John Seymour, to Du Pont de Nemours, E. I., and Company. Performance analyzer and comparator for pneumatic jet. 3,516,285, 6-23-70, Cl. 73-69.

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Senge, Ferdinand; and Schnell, Hermann, to Farbenfabriken Bayer Aktiengesellschaft. N-methylolsilylethers of carboxylic acid amides. 3,529,006, 9-15-70, Cl. 260-448.8

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Senge, Ferdinand; and Schnell, Hermann, to Farbenfabriken Bayer Aktiengesellschaft. N-methylolsilylethers of ureas and imidazolidinones. 3,547,943, 12-15-70, Cl. 260-309.7

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Sessler, Gerhard M.; and West, James E., to Bell Telephone Laboratories, Incorporated. Method of measuring the volume resistivity of thin, solid dielectric material utilizing the decay rates of a number of measured decay intervals. 3,496,461, 2-17-70, Cl. 324-62.

Sessody, Donald W., to Applied Power Industries, Inc. Hydraulic ram. 3,490,341, 1-20-70, Cl. 92-30.

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Settanni, Theodore R. Clip device for adjustment of suspended ceilings, and ceiling incorporating the same. 3,508,302, 4-28-70, Cl. 24-71.2

Settimi, Raymond J., to American Safety Equipment Corporation. Restraint apparatus. 3,550,875, 12-29-70, Cl. 242-107.4

Settle, Benjamin T., Jr.; and Settle, Sarah E. Retractable vehicle door protector. 3,540,773, 11-17-70, Cl. 296-152.

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Settler, Morris; and Settler, Bert, to Manitola Development Fund, mesne. Physiological pulse meter. 3,541,590, 11-17-70, Cl. 128-2.05

Setz, Henry L., to Ford Motor Company. Glass-plastic laminates having a layer of glass fiber filled polycarbonate. 3,525,658, 8-25-70, Cl. 161-1.

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Seulen, Gerhard; and Reinke, Friedhelm, to AEG-Elotherm G.m.b.H. Process for the inductive heating of workpieces having continuously changing radii of curvature. 3,504,150, 3-31-70, Cl. 219-10.43

Seulen, Gerhard; and Reinke, Friedhelm, to AEG-Elotherm GmbH. Method for improving the torsional fatigue strength of crankshafts. 3,510,928, 5-12-70, Cl. 29-149.5

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Seuret, Marcel; Leutenegger, Willi; and Wegmuller, E. Hans, to Geigy, J. R., A.G. Process for the continuous dyeing and printing of fibre material from linear, high molecular esters of aromatic polycarboxylic acids with polyfunctional alcohols. 3,510,243, 5-5-70, Cl. 8-39.

Seus, Edward J.; and Goldman, Martin, to Eastman Kodak Company. Photoconductive elements containing organic photoconductors of the triarylalkane and tetraarylmethane types. 3,542,544, 11-24-70, Cl. 96-1.5

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Severin, Walter C., to United States of America, Air Force. Method and means for indicating ultrahigh temperatures. 3,513,705, 5-26-70, Cl. 73-358.

Severing, Herbert; Radtke, Dieter; Grasshoff, Hans-Wilhelm; and Kress, Heinz, to Hoesch Aktiengesellschaft Hauptverwaltung. Method of producing a steel packing strip of high strength. 3,551,216, 12-29-70, Cl. 148-12.

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Seward, Glen J., to Avco Corporation. Inductively loaded capacitive antenna. 3,513,473, 5-19-70, Cl. 343-752.

Seward, Harold H. Grating-type electrooptical transducer with lenticular lenses. 3,514,618, 5-26-70, Cl. 250-233.

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Shafer, Philip E., to Burroughs Corporation. Traveling domain wall memory system apparatus. 3,493,946, 2-3-70, Cl. 340-174.
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Shah, Ramesh M., to Lilly, Eli, and Company. Laboratory support ring. 3,516,801, 6-23-70, Cl. 23-292.
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Sharp, Royds; and Bath, Malcolm, to National Research Development Corporation. Gauging distance between two surfaces. 3,520,175, 7-14-70, Cl. 73-37.8
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Shlesinger, Bernard Edward, Jr. Temperature changing circuit programming apparatus. 3,517,166, 6-23-70, Cl. 235-61.11

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Shlykov, Nikolai Alexeevich: *See*—
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Sholtes, Carl E., to Westinghouse Electric Corporation. Dehumidifier control system. 3,496,731, 2-24-70, Cl. 62-173.

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Shomphe, George J.; Tabor, Robert W.; and Lalmond, Harold W., to Sanders Associates, Inc. Method of fabricating an electrical resistance heating pad. 3,547,725, 12-15-70, Cl. 156-272.

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Shonebarger, Francis J.; and Allen, Charles G., to Anchor Hocking Corporation. Borate and method salt coated glassware and method of making. 3,529,991, 9-22-70, Cl. 117-72.

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Shook, William M., to Warner & Swasey Company, The. Machine with hydraulic boom. 3,530,767, 9-29-70, Cl. 91-411.

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Shore, Sidney X. Invertible mechanical timers. 3,492,811, 2-3-70, Cl. 58-144.

Shore, Sidney X. Animated measuring tape. 3,524,273, 8-18-70, Cl. 40-70.

Shore, William S., to Diamond Shamrock Corporation. Method and apparatus for fabricating flexible sheet material. 3,503,098, 3-31-70, Cl. 18-19.

Shores, Ray F. Plugging device. 3,504,420, 4-7-70, Cl. 29-235.

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Shores, Stanley C., Jr., to Bell Telephone Laboratories, Incorporated. Connector for telephone main distributing frame. 3,518,611, 6-30-70, Cl. 339-18.

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Short, Don L. Internal measuring device to determine pipe curvature. 3,496,644, 2-24-70, Cl. 33-174.

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Short, Edward H., III, to Combustion Engineering, Inc. Turbine meter. 3,546,940, 12-15-70, Cl. 73-231.

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Short, Oliver A., to Du Pont de Nemours, E. I., and Company. Metalizing compositions whose fired-on coatings can be subjected to acid bath treatment and the method of using such metalizing compositions. 3,505,134, 4-7-70, Cl. 156-2.

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Short, Oliver A., to Du Pont de Nemours, E. I., and Company. Novel silver compositions and capacitors therefrom. 3,545,986, 12-8-70, Cl. 106-1.

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Short, Ronald Victor. Gas burners. 3,498,545, 3-3-70, Cl. 239-417.5

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Shortes, Samuel R., to Texas Instruments, Incorporated. Phosphors for color display systems. 3,537,876, 11-3-70, Cl. 117-33.5

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Shotmeyer, Albert. Musical instrument with magnetic type tape reproducer. 3,550,495, 12-29-70, Cl. 84-267.

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Shriver, Charles S., to Orbit Manufacturing Company, Inc. Finned tube heat exchanger and method of making same. 3,550,680, 12-29-70, Cl. 165-55.

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Shriver, Edward L., to United States of America, National Aeronautics and Space Administration. Apparatus for determining the deflection of an electron beam impinging on a target. 3,541,439, 11-17-70, Cl. 324-71.

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Shropshire, Joseph A., to Esso Research and Engineering Company. High area catalyst preparation. 3,547,830, 12-15-70, Cl. 252-432.

Shroyer, Larry L., to Lyall Electric, Inc. Integral rubber lampholder. 3,500,294, 3-10-70, Cl. 339-170.

Shrubsall, Harry I. Work-in-circuit consumable metal welding. 3,526,749, 9-1-70, Cl. 219-137.

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Shryne, Thomas M., to Shell Oil Company. Preparation of N-(alkadienyl)amines. 3,530,187, 9-22-70, Cl. 260-583.

Shryne, Thomas M.; Smutny, Edgar J.; and Stevenson, David P., to Shell Oil Company. Production of allylic-substituted secondary and tertiary amines. 3,493,617, 2-3-70, Cl. 260-583.

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Shukat, Harry; and Harman, Eric, to Tudoran Tradeshop, Inc. Self-operating drapery. 3,487,875, 1-6-70, Cl. 160-84.

Shukys, Julius George, to Air Reduction Company, Incorporated. Muscle relaxant and tranquilizer composition and method employing 4,5-dimethyl-5-ethyl-4-hydroxy-3- hydroxy-ethyl-1,3-oxazolidin 2-one. 3,542,926, 11-24-70, Cl. 424-272.

Shukys, Julius G., to Air Reduction Company, Incorporated. Temperature reducing compositions and methods employing 1,3-oxazolidin-2 ones. 3,538,222, 11-3-70, Cl. 424-272.

Shukys, Julius G. Temperature reducing composition and method employing 4,5,5-trimethyl-4-hydroxy-3-N-morpholino- ethyl-1,3-oxazolidin-2-one. 3,542,924, 11-24-70, Cl. 424-248.

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Shulgin, Alexander T., to Dow Chemical Company, The. 1,2,3,4-Tetrahydro-5H-[1]benzopyrano[3,4-d] pyridines and 1,2,3,4,13,14-hexahydro-5H-[1] benzopyrano[3,4-d]pyridines. 3,522,260, 7-28-70, Cl. 260-294.3

Shulgin, Alexander T., to Dow Chemical Company, The. 1-(Di(lower alkoxy)-4-alkylphenyl)-2- nitropropenes. 3,541,158, 11-17-70, Cl. 260-613.

Shulgin, Alexander T., to Dow Chemical Company, The. 4-Alkyl-dialkoxy-α-methyl-phenethylamines and their pharmacologically-acceptable salts. 3,547,999, 12-15-70, Cl. 260-570.8

Shulick, Robert J.; and Stachowski, Raymond, to Babson Bros. Co. Milk line valve. 3,545,719, 12-8-70, Cl. 251-146.

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Shultz, Andrew, to Allied Chemical Corporation. Rigid polyurethane foams from certain polyether mixtures. 3,509,077, 4-28-70, Cl. 260-2.5

Shultz, Clarence R., to United States of America, Army. Combination shipping and storage container. 3,508,698, 4-28-70, Cl. 229-23.

Shultz, Richard H.; and Provost, Richard H., to Package Machinery Company. Conveyor belt alignment apparatus for candy bars and the like. 3,528,537, 9-15-70, Cl. 198-34.

Shultz, Walter; and Langdon, Harmon, to Textron, Inc. Turret indexing mechanism. 3,545,317, 12-8-70, Cl. 82-36.

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Shultz, William S.; and Gibson, George W., to United States of America, Navy. Marine corer with valve. 3,497,018, 2-24-70, Cl. 175-6.

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Shumaker, Charles Storer, to United Engineering and Foundry Company. Replaceable mandrel for tension reel. 3,537,665, 11-3-70, Cl. 242-78.1

Shumakov, Valery Ivanovich; Ivanov, Evgeny Alexandrovich; Patsev, Boris Nikolaevich; Mats, Matvei Mikhailovich; Konoplev, Alexei; and Vavilov, Boris Pavlovich. Cardiac valve prosthesis for sutureless fixation. 3,546,710, 12-15-70, Cl. 3-1.

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Siebert, Alan R., to Goodrich, B. F., Company, The. Liquid hydroxyl terminated polymers of butadiene- acrylonitrile. 3,551,472, 12-29-70, Cl. 260-465.4
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Sigma Instruments, Inc.: *See—*
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James, Brian David, 3,518,494.
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Meier, William A., 3,544,029.
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Sikorra, Daniel J., to Honeywell Inc. Self-starting DC to DC converters. 3,506,904, 4-14-70, Cl. 321-2.
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Silas, Robert S.; and Hines, William J., to Phillips Petroleum Company. Method and apparatus for determining molecular weights employing a pressure transducer. 3,527,085, 9-8-70, Cl. 73-64.2
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Silichev, Alexandr Nikolaevich. Device for stamping metal blanks. 3,494,161, 2-10-70, Cl. 72-115.
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Silva, Antonio Vicente, to Westinghouse Electric Corporation. Automatic gauge control system with an adaptive gain loop. 3,492,844, 2-3-70, Cl. 72-8.
Silva, Antonio Vicente, to Westinghouse Electric Corporation. Interstand tension control for tandem cold rolling mills. 3,507,134, 4-21-70, Cl. 72-8.
Silva, Antonio V., to Westinghouse Electric Corporation. Maximum torque reel drive utilizing an inertia compensation and counter EMF control. 3,548,270, 12-15-70, Cl. 318-6.
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Silva, Lawrence M.: *See—*
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Silva, Rene N.; and Remsen, Irving B., to Ritter Pfaudler Corporation. Sugar clarification process. 3,539,393, 11-10-70, Cl. 127-51.
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Silver, Bernard R., to U.S. Industries, Inc. Fastener with ornamental front. 3,534,446, 10-20-70, Cl. 24-90.
Silver, Gary L., to United States of America, Atomic Energy Commission. Self regenerating storage battery. 3,492,160, 1-27-70, Cl. 136-6.
Silver, Harold F.; and Price, Frank B., to CF & I Engineering, Inc., mesne. Press. 3,513,770, 5-26-70, Cl. 100-158.
Silver, Howard Bernard: *See—*
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Silver, Stanley Milton. Siftproof cartons. 3,511,431, 5-12-70, Cl. 229-37.
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Silverberg, Morton, to Xerox Corporation. Graphic distortion apparatus. 3,532,425, 10-6-70, Cl. 355-52.
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Silverman, Daniel. Examining sorting system with multiple rejection means. 3,489,277, 1-13-70, Cl. 209-74.
Silverman, Daniel, to Pan American Petroleum Corporation. Optical system for auto-correlating and auto- convolving recorded signals. 3,492,469, 1-27-70, Cl. 235-181.
Silverman, Daniel, to Pan American Petroleum Corporation. Electrical system for signaling between a floating vessel and a subsea well. 3,497,869, 2-24-70, Cl. 340-4.
Silverman, Daniel. Medical probe adapted to be everted under pressure and method. 3,500,819, 3-17-70, Cl. 128-1.2
Silverman, Daniel. Method and apparatus for placing in and retrieving a tubular probe from a body cavity. 3,502,069, 3-24-70, Cl. 128-2.
Silverman, Daniel. Medical instrument for everting a thinwalled flexible tubing. 3,506,011, 4-14-70, Cl. 128-348.
Silverman, Daniel, to Pan American Petroleum Corporation. Method and apparatus for cutting large diameter bore holes. 3,507,540, 4-21-70, Cl. 299-15.
Silverman, Daniel. Method and apparatus for storing on and retrieving information from multiple high density information strips. 3,523,183, 8-4-70, Cl. 235-61.11
Silverman, Daniel, to Pan American Petroleum Corporation. Deconvolution of variable optical density records. 3,524,195, 8-11-70, Cl. 250-219.
Silverman, Daniel. Information system using arrays of multiple spot patterns. 3,550,085, 12-22-70, Cl. 340-146.3
Silverman, Daniel, to Pan American Petroleum Corporation. Electrical communication system for oil field gathering system. 3,551,890, 12-29-70, Cl. 340-171.
Silverman, Herbert P., to Du Pont de Nemours, E. I., and Company. Method of deoxygenting solutions in making biological determinations. 3,526,578, 9-1-70, Cl. 204-1.
Silverman, Herbert P.; and Brake, Jon M., to Magna Corporation. Method of determining microbial populations, enzyme activities, and substrate concentrations by electrochemical analysis. 3,506,544, 4-14-70, Cl. 204-1.
Silverman, Herbert P.; and Giarrusso, Gino A., to TRW Inc. Sensors for detecting reducing vapors. 3,549,329, 12-22-70, Cl. 23-254.
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Silverman, Herbert W., to RCA Corporation. Use in an automatic testing system of a simulator of an article being tested for testing the testing system. 3,541,440, 11-17-70, Cl. 324-73.
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Silverstein, Ronald M.; Bishof, Chester A.; and Matey, Joseph T., to Betz Laboratories, Inc. Corrosion inhibition in water system. 3,510,436, 5-5-70, Cl. 252-389.
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Silvertooth, Ernest W. Catoptric image-forming system in which light is reflected twice from each surface. 3,527,526, 9-8-70, Cl. 350-294.
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Silvon, Kay, to Omark Industries, Inc. Clamp-on top filers. 3,543,612, 12-1-70, Cl. 76-31.
Silvon, Kay; Buttner, Horace J.; and Carter, Russell E., to Omark Industries, Inc. Sharpeners for chain saws. 3,516,459, 6-23-70, Cl. 143-32.
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Simison, Allen L.; and Smucker, Clayton A., to Owens-Corning Fiberglas Corporation. Method of making a fiberboard of varying density. 3,539,423, 11-10-70, Cl. 156-209.
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Simizu, Kiyosi, to Yawata Iron & Steel Co., Ltd. Wet type gas scrubber. 3,502,308, 3-24-70, Cl. 261-64.
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Simjian, Luther G., to General Research, Inc. Postage metering system having signal conditioning means. 3,501,744, 3-17-70, Cl. 340-152.
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Simmonds, David Thomas, to National Research Development Corporation. Plugged-program relay computer. 3,512,135, 5-12-70, Cl. 340-172.5
Simmonds, David Thomas, to National Research Development Corporation. Binary adder in which binary numbers in different multistage stores are added together into a third store. 3,549,873, 12-22-70, Cl. 235-175.
Simmonds, James A.: *See—*
Burnham, Peter B.; Jones, Roger D.; Diedrich, Paul E.; Arrasmith, Grant H.; and Simmonds, James A.,3,511,543.
Simmonds, James B. Bundle conductor stringing-sagging block. 3,501,129, 3-17-70, Cl. 254-134.3
Simmonds, Milo R.: *See—*
Bovard, Robert M.; and Simmonds, Milo R.,3,516,797.
Simmonds Precision Products, Inc.: *See—*
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Blakeney, Hurley J.; and McNair, Willie L., 3,513,462.
Cohn, Irving H., 3,501,955.
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Parkinson, James R.; Gallant, George A.; and Van Manen, Syderius, 3,538,762.
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Sargent, Raymond W., 3,496,775.
Sargent, Raymond W., 3,500,146.
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Simmonds, Silas E., to S & S Industries, Inc. Pneumatic door operator. 3,537,503, 11-3-70, Cl. 160-188.
Simmons, Augrum H.; and Williamson, Edwin H., to Williamson, Edwin H. Chicken debeaker and inoculator. 3,502,079, 3-24-70, Cl. 128-253.
Simmons, Bowen E.: *See—*
Mader, George E.; Musgrove, Gerald W.; and Simmons, Bowen E.,3,522,605.
Simmons, Charles A., to Singer Company, The. Method of forming a magnetic recording medium. 3,516,860, 6-23-70, Cl. 117-236.
Simmons, Collier D.: *See—*
Mitchell, Edward B.; and Simmons, Collier D.,3,531,611.
Simmons, Curtis J.: *See—*
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Simmons, Derrick George: *See—*
Smith, James; and Simmons, Derrick George,3,497,827.
Simmons, George A., to Owens-Illinois, Inc. Glass, ceramic and method. 3,497,366, 2-24-70, Cl. 106-39.
Simmons, George A., to Owens-Illinois, Inc. Method for producing a glass-ceramic article. 3,498,775, 3-3-70, Cl. 65-33.

Simmons, George A.: *See—*
Petticrew, Richard W.; and Simmons, George A.,3,499,773.
Simmons, Harold C., to Parker-Hannifin Corporation. Anti-erosion fuel injection nozzle. 3,540,658, 11-17-70, Cl. 239-472.
Simmons, Haryl C., to Automated Manufacturing Products, Inc. Band sharpener control. 3,538,652, 11-10-70, Cl. 51-249.
Simmons, Howard Ensign, Jr.: *See—*
Harder, Robert, Jr.; and Simmons, Howard Ensign, Jr.,3,523,878.
Park, Chung Ho; and Simmons, Howard E.,3,531,468.
Simmons, James R., to Dimensional Concepts Inc. Portable display unit. 3,500,569, 3-17-70, Cl. 40-132.
Simmons, Judith K.: *See—*
Kitchen, Everitt A.; and Simmons, Judith K.,3,544,473.
Simmons, Lawrence C., to Cleveland Technical Center, Inc. Acceleration measurement and recording device. 3,490,292, 1-20-70, Cl. 73-492.
Simmons, Leonard; and Ravitz, Gerald. Surgical bone cutter. 3,507,284, 4-21-70, Cl. 128-318.
Simmons, Lovel R. Method and apparatus for moving earth and the like materials. 3,521,388, 7-21-70, Cl. 37-129.
Simmons, Patrick M. L., 1/2 to Hanscom, Genevieve I. Magnuson, Robert, and Duggan, Lois J., as trustees of the estate of Magnuson, Roy M. Monostable multivibrator. 3,491,256, 1-20-70, Cl. 307-273.
Simmons, Richard P.; Fogarty, John E.; Mattes, Henry O.; and Davis, Lorin J., to Republic Steel Corporation. Method of making a composite metal product. 3,522,111, 7-28-70, Cl. 148-12.4
Simmons, Richmond R.: *See—*
Burns, Ora W., Sr.; and Simmons, Richmond R.,3,519,023.
Simmons, William W., to TRW Inc. Means for extracting light from mode-locked lasers. 3,529,263, 9-15-70, Cl. 331-94.5
Simmons, William W.; Paolozzi, James M.; and Robinson, Wesley A., to TRW Inc.Means for stabilization of transverse Pockels' cells. 3,532,891, 10-6-70, Cl. 250-199.
Simmons, William W.; and Witte, Robert S., to TRW Inc. Passive optical isolator. 3,508,166, 4-21-70, Cl. 331-94.5
Simms Group Research & Development Limited: *See—*
Erlebach, Vivien Woodland; and Gandy, Richard Frank, 3,514,162.
Simms Motor Units Limited: *See—*
Paterson, Thomas; and Howard, John A., 3,495,535.
Simms, Thomas S. Wheeled ski. 3,545,779, 12-8-70, Cl. 280-11.28
Simon, Albert B.: *See—*
Rushing, Frank C.; and Simon, Albert B.,3,543,806.
Simon, Albert, to Compagnie de Saint-Gobain. Method of manufacturing composite laminated resinous sheets. 3,536,551, 10-27-70, Cl. 156-64.
Simon, Arpad, to Atom Auto Pecas LTDA. Fuel inlet vaporizers for carburators. 3,540,660, 11-17-70, Cl. 239-581.
Simon, Arthur, to Bendix Corporation, The. Means for producing fog films. 3,523,727, 8-11-70, Cl. 355-18.
Simon, Arthur, to Bendix Corporation, The. Day and night fog simulator. 3,548,515, 12-22-70, Cl. 35-12.
Simon, Arthur; Gonzalez, Wayne R.; and Ankenbrock, Charles A., to Bendix Corporation, The. Control for fog simulator effects. 3,541,584, 11-17-70, Cl. 35-12.
Simon, Arthur; Janoski, Stanley S.; and Gundling, Warren G., to Bendix Corporation, The. Visual simulator for dynamic fog and cloud motion effects. 3,541,704, 11-24-70, Cl. 35-12.
Simon, Donald R.; and Guerrieri, Angelo J., to Vitro Corporation of America. Short arc lamp with ignition means and envelope sealing means. 3,534,213, 10-13-70, Cl. 313-184.
Simon, Eli: *See—*
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Simon, George, to United Bedding Corporation. Fire resistant mattress. 3,512,192, 5-19-70, Cl. 5-345.
Simon, Gunter: *See—*
Nordsiek, Karl-Heinz; van de Kamp, Franz-Peter; Zeppernick, Friedrich; and Simon, Gunter,3,501,422.
Simon, Harry. Key machine. 3,495,482, 2-17-70, Cl. 76-110.
Simon, Helmut F., 1/2 to Wildbad, Prof. Dr. Berthold, and 1/2 to Bodenseewerk Perkin-Elmer & Co. GmbH. Method and device for measuring the radioactivity of ^{14}C-and/or ^{3}H-marked compounds. 3,506,402, 4-14-70, Cl. 23-230.
Simon, Henry, Limited: *See—*
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Simon, Horst: *See—*
Steisslinger, Kurt; and Simon, Horst,3,511,153.
Steisslinger, Kurt; and Simon, Horst,3,541,935.
Simon, Horst, to Eastman Kodak Company. Flash mechanism. 3,511,148, 5-12-70, Cl. 95-11.
Simon, Horst, to Eastman Kodak Company. Lock for locking the back of a photographic camera. 3,511,154, 5-12-70, Cl. 95-31.
Simon, Horst, to Eastman Kodak Company. Cell holder. 3,542,603, 11-24-70, Cl. 136-173.
Simon, Ivan: *See—*
Emslie, Alfred G.; and Simon, Ivan,3,493,274.
Simon, Ivan, to Little, Arthur D., Inc. Apparatus for measuring small deviations from a true horizontal plane. 3,492,738, 2-3-70, Cl. 33-206.
Simon, Jack, to General Plastics Corporation. Aqueous plastic coating material suspensions. 3,496,127, 2-17-70, Cl. 260-13.
Simon, James L.: *See—*
Anderson, Harold P.; Flavin, Michael A.; Grandmaison, John P.; Saltus, George E.; and Simon, James L.,3,519,757.
Simon, John G.; and McGurran, Jon P., to Minnesota Mining and Manufacturing Company. Hydrophilic polyurethane sponge. 3,508,953, 4-28-70, Cl. 117-98.
Simon, Julius L.; and Salners, Edward A., to Motorola, Inc. Electrical component mount. 3,506,951, 4-14-70, Cl. 339-214.
Simon, Lawrence Mathias: *See—*
Masters, John Edmund; Simon, Lawrence Mathias; and Germiat, Hubert Joseph,3,524,779.
Simon, Lewis B., to United States of America, Navy. Communication system. 3,499,108, 3-3-70, Cl. 178-7.1
Simon, Manfred: *See—*
Schneider, Ernst; and Simon, Manfred,3,539,444.
Simon, Myron S.: *See—*
Downey, John F.; and Simon, Myron S.,3,491,127.
Simon, Myron S., to Polaroid Corporation. Color transfer image-forming process utilizing coupler-developers whose oxidation products can couple inter-molecularly. 3,537,850, 11-3-70, Cl. 96-29.
Simon, Myron S., to Polaroid Corporation. α-Chloro-α-chlorosulfenyl-phenyl acetyl chloride and a process for the preparation thereof. 3,549,699, 12-22-70, Cl. 260-544.
Simon, Ralph; McAuliffe, Clayton D.; Poynter, Wesley G.; and Jennings, Harley Y., Jr., to Chevron Research Company. Pipelining crude oil. 3,487,844, 1-6-70, Cl. 137-13.
Simon, Ralph; and Poynter, Wesley G. Pipelining oil/water mixtures. 3,519,006, 7-7-70, Cl. 137-13.
Simon, Raphael A., to Corning Glass Works. Maintaining sheet glass width. 3,537,834, 11-3-70, Cl. 65-199.
Simon, Roger A.; Hoad, Reginald; and Terrett, David S., to Electronic Associates, Inc. Potentiometers. 3,537,055, 10-27-70, Cl. 338-149.
Simon, Steven I. Automatic step reset controller. 3,532,956, 10-6-70, Cl. 318-609.
Simon, Theodore A.; and Richardson, Edwin A., to Shell Oil Company. Electroless metal bonding of unconsolidated formations with backflow. 3,548,943, 12-22-70, Cl. 166-292.
Simon-Vermot, Andre, to Les Fabriques d'Assortiments Reunies. Method of lubricating a timepiece movement. 3,496,003, 2-17-70, Cl. 117-27.
Simon-Vermot, Andre, to Les Fabriques d'Assortiments Reunies. Method of lubricating a timepiece movement. 3,511,340, 5-12-70, Cl. 184-1.
Simon, Walter; and Raynor, William D., to United States of America, Navy. Compatible radar MTI correlation system. 3,530,466, 9-22-70, Cl. 343-7.7
Simon, Warner H. Metallurgy. 3,498,094, 3-3-70, Cl. 72-38.
Simon, William Frederick: *See—*
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Simon-Carves Limited: *See—*
Abson, James W.; Landau, Manfred; Clark, Eric I.; and Molyneux, Alan, 3,549,559.
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Simon-Hartley Limited: *See—*
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Simoncic, Louis E., to Bethlehem Steel Corporation. Method of operation of a continuous strip heating furnace. 3,492,378, 1-27-70, Cl. 263-52.
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Simoneau, George R., to General Dynamics Corporation. Non-linear quickened monitor and controller. 3,504,249, 3-31-70, Cl. 318-18.
Simonetta, Massimo, to Societa Italiana Resine S.p.A. Process for producing benzene by the hydrodealkylation of cumene bottoms. 3,517,077, 6-23-70, Cl. 260-672.
Simonetta, Massimo, to Societa Italiana Resine S.p.A. Preparation of benzene from toluene. 3,517,078, 6-23-70, Cl. 260-672.
Simonian, Atkin Yervant, to Sel-Rex Corporation. Plating low stress bright rhodium. 3,528,895, 9-15-70, Cl. 204-44.
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Simonides, Jan: *See—*
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Simoniz Company: *See—*
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Simonnet, Jacques Louis Paul: *See—*
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Simonov, Leonid Petrovich: *See—*
Karpacheva, Susanna Mikhailovna; Ivanov, Vladimir Dmitrievich; Muratov, Valerian Matveevich; Raginsky, Leonid Solomonovich; Romanov, Alexandr Vladimirovich; Shirsky, Alexandr Nikolaevich; Klimov, Igor Nikolaevich; and Simonov, Leonid Petrovich,3,531,093.

Simons, Dolph, to Simco Company, Inc., The. Back lighted electrostatic copyboard. 3,549,963, 12-22-70, Cl. 317-262.

Simons, Joseph F.: *See—*
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Simons, Keneth A. Inductively coupled tap. 3,505,615, 4-7-70, Cl. 333-10.

Simons, Keneth A., to Jerrold Electronics Corporation. Method of metering receivers in a wired TV distribution system. 3,514,530, 5-26-70, Cl. 178-5.1

Simons, Keneth; and Duty, George Otto, to Jerrold Electronics Corporation. Variable attenuators. 3,522,453, 8-4-70, Cl. 307-264.

Simons, Kenneth A.: *See—*
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Simons, Morris, to Coors Porcelain Company. Athletic shoe. 3,522,669, 8-4-70, Cl. 36-67.

Simons, Richard C.; and Whitehead, Howard A., to Kimberly-Clark Corporation. Absorbent accordion pleated shaped pad with backing sheet. 3,525,337, 8-25-70, Cl. 128-290.

Simons, Robert M.: *See—*
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Simonsen & Mustad A.S.: *See—*
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Simonsen, Carl G. Brassiere. 3,491,762, 1-27-70, Cl. 128-484.

Simonsen, Carl G. Girdle. 3,491,764, 1-27-70, Cl. 128-528.

Simonsen, Richard C., to Burroughs Corporation. Digital tachometer circuit. 3,546,530, 12-8-70, Cl. 317-5.

Simonson, Eugene P., to Standard Pressed Steel Co. Safety nut assembly. 3,508,774, 4-28-70, Cl. 287-189.36

Simonson, Eugene P., to Standard Pressed Steel Co. Safety nut. 3,508,775, 4-28-70, Cl. 287-189.36

Simonton, Raymond L., to International Nickel Company, Inc., The. Extrusion mandrel. 3,541,831, 11-24-70, Cl. 72-266.

Simovits, Stephen S., Jr.; Dumas, Christ J.; and Manetti, Fred P., to American Plasticraft Company. Electron tube socket assembly. 3,543,098, 11-24-70, Cl. 317-101.

Simpkins, Don L., to Thiokol Chemical Corporation. Rocket charge design. 3,499,283, 3-10-70, Cl. 60-39.47

Simpkins, Joe M.: *See—*
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Simpkins, Robert L.: *See—*
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Simplex Corporation: *See—*
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Tabor, Ralph L.; Greenwood, Walter; and Manetta, Peter J., 3,500,992.

Simplex Nail & Manufacturing Corporation: *See—*
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Simplex Wire and Cable Company: *See—*
Graneau, Peter; and Jeanmonod, John, 3,522,360.
Graneau, Peter, 3,542,938.
Graneau, Peter; and Afshartous, Sayfollah Bijan, 3,549,780.
Heidt, Lawrence J., 3,522,183.
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Simplicity Engineering Company: *See—*
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Simplicity Manufacturing Company, Inc.: *See—*
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Simplot, J. R., Company: *See—*
Bosen, Wendell R.; Humberger, Roger B.; Smith, Jack L.; and Davis, Charles M., 3,493,340.

Simpson, Anthony Unwin, to Garrett Corporation, The. Gas engine-refrigerator. 3,523,427, 8-11-70, Cl. 62-6.

Simpson, Basil; Macdougall, John; and Thompson, Robert Arthur, to Pilkington Brothers Limited. Method and apparatus for producing float glass utilizing electrically resistive refractory confining walls. 3,492,107, 1-27-70, Cl. 65-99.

Simpson, Billy D.: *See—*
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Simpson, Donald W.; and Glass, John Y., to Dow Chemical Company, The. Method for the preparation of foamed sheet and product obtained thereby. 3,539,473, 11-10-70, Cl. 260-2.5

Simpson, Elbert L.: *See—*
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Archer, Wesley L.; and Simpson, Elbert L.,3,546,125.
Archer, Wesley L.; and Simpson, Elbert L.,3,546,305.
Archer, Wesley L.; Simpson, Elbert L.; and Graybill, George Richard,3,501,538.

Simpson, Forrest L.: *See—*
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Simpson, Forrest L., to International Harvester Company. Cotton harvester with removable basket and transport vehicle therefor. 3,528,230, 9-15-70, Cl. 56-14.

Simpson, Francis: *See—*
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Simpson, Harry E.: *See—*
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Simpson, Henry W.: *See—*
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Gaitten, Ronald E.; and Simpson, Henry W.,3,529,222.

Simpson, Heyward V.; Burnett, Reginald; and Ellenburg, John E., to Phillips Petroleum Company. Selective molecular orientation of fibers in plastic felt. 3,538,565, 11-10-70, Cl. 28-72.2

Simpson, Howard C.,: *See—*
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Simpson, Jack N.; and Bohner, William R., to ESB Incorporated. Suspension for noise suppressing ear cups. 3,530,509, 9-29-70, Cl. 2-209.

Simpson, James H. Singer-General Precision, Inc. Panoramic receiving and recording means utilizing the effects of Faraday rotation and magnetic resonance. 3,491,286, 1-20-70, Cl. 324-0.5

Simpson, Kenneth Ward: *See—*
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Simpson, Leo, to United States of America, Army, mesne. High efficiency current driver. 3,548,285, 12-15-70, Cl. 320-1.

Simpson, Lewis E.: *See—*
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Simpson, Marguerite; and Grays, Frances S. Checker-type game with variously colored transparent squares and playing pieces. 3,532,342, 10-6-70, Cl. 273-131.

Simpson, Richard W.; and Hart, Carl R., to Magnavox Company, The. Clamping device. 3,540,088, 11-17-70, Cl. 24-221.

Simpson, Roy: *See—*
Cavalla, John F.; Simpson, Roy; and White, Alan C.,3,528,984.

Simpson, Samuel W., to Shell Oil Company. Apparatus and method for automatic crystal point detection. 3,514,993, 6-2-70, Cl. 73-17.

Simpson, Theodore B. Ammoniation-granulation process wherein an acid soluble salt is added to the granulation zone. 3,490,892, 1-20-70, Cl. 71-34.

Simpson, Theodore B., to Texas Gulf Sulphur Company, Inc. Apparatus for producing norman super- phosphate. 3,512,941, 5-19-70, Cl. 23-259.2

Simpson, Thomas: *See—*
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Simpson Timber Company: *See—*
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Simpson, Warren C., to Shell Oil Company. Electroless metalization of unconsolidated earth formations. 3,500,927, 3-17-70, Cl. 166-292.

Simpson, Warren C., to Shell Oil Company. Adjustment of pH in the filtration of tar sand solvent-water systems. 3,542,666, 11-24-70, Cl. 208-11.

Simpson, Warren O., to Kellogg Company. Reclosable carton. 3,549,082, 12-22-70, Cl. 229-51.

Simpson, William G.; and Walker, Hill M., to United States of America, National Aeronautics and Space Administration. Space environmental work simulator. 3,534,485, 10-20-70, Cl. 35-12.

Simpson, William I.: *See—*
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Simpson, William R. J., to Sandoz-Wander, Inc. Tricyclic compounds. 3,549,652, 12-22-70, Cl. 260-307.

Simpson-Lawrence Limited: *See—*
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Sims, Chester T.: *See—*
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Sims, Chester T.; and Beltran, Adrian M., to General Electric Company. High temperature corrosive resistant cobalt- base alloys. 3,549,356, 12-22-70, Cl. 75-171.

Sims, Clark D. Tire with automatic wear indicating means. 3,516,467, 6-23-70, Cl. 152-330.

Sims, David John; and Stephenson, Robert James, to Monsanto Chemicals Limited. Foamable polymers containing a flame retardant. 3,507,816, 4-21-70, Cl. 260-2.5

Sims, James G., to Monsanto Company. Spinneret reconditioning. 3,523,827, 8-11-70, Cl. 134-37.

Sims, John C., Jr., to Mohawk Data Sciences Corporation. Line printing with proportional spacing and justification. 3,509,817, 5-5-70, Cl. 101-93.

Sims, John C., Jr., to Information Transfer Corporation. Teaching machine and information card therefor. 3,521,381, 7-21-70, Cl. 35-9.

Sims, John E.: *See—*
East, Elvin E.; Sims, John E.; and Elliott, Thomas A.,3,510,056.

Sims, Joseph W., to Shell Oil Company. Alkanol hemiketal of 2,2,2',4',5'- pentachloroacetophenone. 3,524,889, 8-18-70, Cl. 260-611.

Sims, Lawson S.: *See—*
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Visman, Jan; and Sims, Lawson S.,3,511,480.

Sims, Lemuel P. Adapter for mounting advertising device to vehicle. 3,495,347, 2-17-70, Cl. 40-129.

Sims, Leslie L., to Ethyl Corporation. Preparation of amine complexes of aluminum hydride. 3,541,125, 11-17-70, Cl. 260-448.

Sims, Raymond Bernard. Rolling mill. 3,533,255, 10-13-70, Cl. 72-8.

Sims, Rex J., to Swift & Company. Stabilization of oxirane containing fatty derivatives. 3,497,531, 2-24-70, Cl. 260-348.

Sims, Robert Y.: *See—*
Westfall, Ted B.; and Sims, Robert Y.,3,542,970.

Sims, Roger D., to Pullman Incorporated. Railroad car and lading tie down means therefor. 3,508,502, 4-28-70, Cl. 105-369.

Sims, Rowell W. Mandrel for rolling bedding. 3,533,572, 10-13-70, Cl. 242-68.

Sims, Victor A.: *See—*
Mottern, Henry O.; and Sims, Victor A.,3,513,214.
Mottern, Henry O.; and Sims, Victor A.,3,547,983.

Simson, Dionizy: *See—*
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Simson, Walter H.: *See—*
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Simunic, Branko, to Durisol AG fur Leichtbaustoffe. Process for accelerating the initial hardening of elements formed of a mixture of cement or other lime-containing hydraulic binder and organic or inorganic aggregates therefor. 3,492,385, 1-27-70, Cl. 264-82.

Simurda, Jiri, to Vyzkumny ustav Zdravotnicke techcniky. Pulse-modulated push-pull amplifier stage for a dual-coil meter. 3,544,897, 12-1-70, Cl. 324-120.

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Sincat-Societa Industriale Catanese S.p.A.: *See—*
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Sincavage, Joseph T.: *See—*
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Sincerbox, Glenn T.: *See—*
Grobin, Allen W.; Reynolds, Jerry L.; Schools, Rodman S.; and Sincerbox, Glenn T.,3,537,854.
Habegger, Millard A.; Harris, Thomas J.; and Sincerbox, Glenn T.,3,533,104.
Reynolds, Jerry L.; Schools, Rodman S.; and Sincerbox, Glenn T.,3,512,879.
Reynolds, Jerry L.; Schools, Rodman S.; and Sincerbox, Glenn T.,3,542,448.
Schools, Rodman S.; and Sincerbox, Glenn T.,3,503,050.
Schools, Rodman S.; and Sincerbox, Glenn T.,3,519,355.

Sincerbox, Glenn T.; and Reynolds, Jerry L., to International Business Machines Corporation. Light beam deflection system. 3,513,323, 5-19-70, Cl. 250-225.

Sincius, Joseph Anthony, to Du Pont de Nemours, E. I., and Company. Radiation-sensitive emulsions. 3,507,656, 4-21-70, Cl. 96-85.

Sinclair, Alex H.: *See—*
Kozowyk, Ted; and Sinclair, Alex H.,3,504,931.
Kozowyk, Ted; and Sinclair, Alex H.,3,504,932.
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Sinclair Company, The: *See—*
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Sinclair, David H.: *See—*
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Single, Charles H., to Applied Dynamics, Inc. Capacitor soakage compensation. 3,529,245, 9-15-70, Cl. 328-127.

Single, David, to Motorola, Inc. Process for reclaiming contaminated phosphors. 3,523,904, 8-11-70, Cl. 252-301.6

Singleman, Alfred H. Baseball game with manually-batted disk. 3,534,962, 10-20-70, Cl. 273-90.

Singletary, June, Jr.: *See—*
Holmes, George T., III; and Singletary, June, Jr.,3,529,259.

Singletary, June, Jr., to Corning Glass Works. Transistorized differential amplifier utilizing components easy to fabricate using thin film circuitry techniques. 3,496,480, 2-17-70, Cl. 330-30.

Singletary, June, Jr., to Corning Glass Works. Low impedance helical delay line. 3,541,477, 11-17-70, Cl. 333-31.

Singleton, Alan H.: *See—*
Carlson, John A., Jr.; Singleton, Alan H.; and Stelts, Philip D.,3,548,568.

Singleton, Alan, to Singer-Cobble Limited. Tufting machines. 3,489,326, 1-13-70, Cl. 226-109.

Singleton, Andrew D.; and Eggen, Ingmar B., to Kraftco Corporation. Whey composition for making yeast-raised dough products. 3,525,627, 8-25-70, Cl. 99-91.

Singleton, David M., to Shell Oil Company. Olefin disproportionation process. 3,530,196, 9-22-70, Cl. 260-680.

Singleton, Earl G.; Henley, Charles L.; and Henley, Donald E. Book holder for bedreader. 3,514,066, 5-26-70, Cl. 248-445.

Singleton, Esther Lee. Portable utilities cabinet. 3,509,866, 5-5-70, Cl. 126-93.

Singleton, Jack S., to Fluid Dynamics Incorporated. Adjustable filter element. 3,550,777, 12-29-70, Cl. 210-91.

Singleton, John C.; Thayer, John R.; and Seelenbinder, Frederick C., to Diamond Power Specialty Corporation. Position indicator. 3,492,616, 1-27-70, Cl. 336-30.

Singleton, Norman R., to Westinghouse Electric Corporation. Shaft seal lift-off arrangement. 3,529,838, 9-22-70, Cl. 277-27.

Singleton, Ogle R., Jr.: *See—*
Robinson, Grover C., Jr.; Singleton, Ogle R., Jr.; and Jorstad, John L., Jr.,3,537,695.

Sinitsin, Pavel Petrovich; and Petrushin, Vasily Petrovich. Paper disintegrator. 3,550,527, 12-29-70, Cl. 100-97.

Sinizer, David I.; Toy, Albert; Atteridge, David G.; and Fanelli, Louis H., to North American Rockwell Corporation. Stress-oriented filament winding in composite panels. 3,537,170, 11-3-70, Cl. 29-467.

Sink, Larry W.; and Kear, Bernard H., to United Aircraft Corporation. Process for casting single crystal shapes. 3,543,284, 11-24-70, Cl. 164-60.

Sink, William H., to Dana Corporation. Clutch offering lowered clutch disengaging force and wear compensation. 3,520,388, 7-14-70, Cl. 192-70.29

Sinker, David H. Punch card reader including a series of switch assemblies mounted on the edge of a circuit board. 3,519,767, 7-7-70, Cl. 200-46.

Sinkey, Vernon J.: *See—*
Argabright, Perry A.; Kelly, Joe T.; and Sinkey, Vernon J.,3,511,813.
Argabright, Perry A.; Sinkey, Vernon J.; and Phillips, Brian L.,3,498,954.
Argarbright, Perry A.; Phillips, Brian L.; and Sinkey, Vernon J.,3,526,624.
Phillips, Brian L.; Argabright, Perry A.; and Sinkey, Vernon J.,3,532,698.

Sinkler, Deas. Balanced sleeved plug valve or cock. 3,536,295, 10-27-70, Cl. 251-164.

Sinkule, James; Sinkule, William J.; and Sinkule, Jim. Implement carrier. 3,523,699, 8-11-70, Cl. 280-412.

Sinkule, Jim: *See—*
Sinkule, James; Sinkule, William J.; and Sinkule, Jim,3,523,699.

Sinkule, William J.: *See—*
Sinkule, James; Sinkule, William J.; and Sinkule, Jim,3,523,699.

Sinn, Gustav: *See—*
Hornig, Heinz; Jennes, Gert; and Sinn, Gustav,3,506,605.

Sinnema, Feije H.: *See—*
Vegter, Geert C.; and Sinnema, Feije H.,3,507,819.
Vegter, Geert C.; and Sinnema, Feije H.,3,536,734.

Sinner, Bengt: *See—*
Bybvig, Arne; Sinner, Bengt; Torok, Vilmos; and Kain, Per,3,522,518.

Sinnott, Niclos M. Method of making garlic bread. 3,537,863, 11-3-70, Cl. 99-90.

Sinoda, Akibumi; and Nishii, Mashahiko, to Toyoda Automatic Loom Works, Ltd. Speed change controlling device for industrial vehicle. 3,550,734, 12-29-70, Cl. 192-4.

Sinram & Wendt: *See—*
Niehenke, Joachim, 3,491,469.

SINTEF: *See—*
Hakonsen, Ole Petter, 3,518,673.

Sinussas, Robert R., to Monsanto Company. Double-balanced modulator circuit readily adaptable to integrated circuit fabrication. 3,550,040, 12-22-70, Cl. 332-44.

Sinyavsky, Adolf Pinkhusovich; and Bedeker, Viktor Alexandrovich. Device for automatic charging of difibrer magazines with pulpwood. 3,516,531, 6-23-70, Cl. 198-33.

Sionics, Inc.: *See—*
Werbell, Mitchell L., 3,500,955.

Sioux Steam Cleaner Corporation: *See—*
Finger, John F., 3,533,380.

Sioux Tools, Inc.: *See—*
Madsen, Jens Axel W.; and Albertson, Frank O., 3,533,479.

Sipe, Paul C.: *See—*
Allen, Gordon H., 3,504,503.

Siphar S.A.: *See—*
Ferrari, Giorgio; and Casagrande, Cesare, 3,539,582.

Sipin, Anatole J. Electromagnetic driver for pressure measuring system. 3,505,627, 4-7-70, Cl. 335-209.

Sipley Company, Inc.: *See—*
Isaacson, Calvin, 3,524,345.

Sipos, John M., to Air Products and Chemicals, Inc. Welding torch. 3,525,845, 8-25-70, Cl. 219-75.

Sipos, John M.; and Collins, Watson R. Jr., to Air Products and Chemicals, Inc. Welding torch gas control valve. 3,522,406, 8-4-70, Cl. 219-74.

Siposs, George G.: *See—*
Fogarty, Thomas J.; Raible, Donald A.; and Siposs, George G.,3,503,398.

Sippel, Arnulf C. T.; Bumiller, Maria-Lotte; and Vollmer, Paul, to Deutsche Rhodiaceta A.G. Polyamide fibers of improved dyeability prepared in the presence of ethylene or propylene carbonate. 3,551,388, 12-29-70, Cl. 260-77.5

Sippel, Donald G., to Ford Motor Company. Movable steering column having transmission shift lever interconnection. 3,487,711, 1-6-70, Cl. 74-493.

Sippel, Robert J.: *See—*
Houldin, Russell; Sippel, Robert J.; and Zahorsky, James T.,3,539,999.

Sipress, Jack M.: *See—*
Aaron, Marvin R.; Johannes, Virgil I.; Mayo, John S.; McCullough, Richard H.; and Sipress, Jack M.,3,502,810.

Sipsey, Matilda Martha: *See—*
Thompson, Kenneth Wade; Price, Richard Thompson; Prodell, Rita Cecilia; and Sipsey, Matilda Martha,3,502,546.

Sire, Gerard. Multi-source signal coupling system using hybrid junctions to compensate for source amplitude unbalance. 3,517,317, 6-23-70, Cl. 325-128.

Sirine, Gloria F.: *See—*
Breen, William H.; and Sirine, Gloria F.,3,551,346.

Sirine, Gloria F., to National Cash Register Company, The, mesne. Method of producing opaque encapsulated materials. 3,510,435, 5-5-70, Cl. 252-316.

Siris, A. J., Products Corporation: *See—*
Siris, Irwin Herbert, 3,519,110.

Siris, Irwin Herbert, to Siris, A. J., Products Corporation. Bag handle. 3,519,110, 7-7-70, Cl. 190-58.

Sirois, Benoit J.: *See—*
Hartsell, Ernest W., Jr.; and Sirois, Benoit J.,3,536,879.

Sirola, Frank. Tool holder with means for retaining a tool therein. 3,533,317, 10-13-70, Cl. 82-36.

Sirola, Frank. Cutting tool. 3,546,759, 12-15-70, Cl. 29-98.

Siron, Robert E.; and King, Cecil K., to United States of America, Army. Pressurized tensile test apparatus. 3,550,440, 12-29-70, Cl. 73-90.

Sironi, Giuseppe: *See—*
Colombo, Umberto; Mini, Iti; and Sironi, Giuseppe,3,499,754.

Sirota, Jonathan J., to Memory Technology Inc. Methods and apparatus for weaving memory braids. 3,525,368, 8-25-70, Cl. 139-55.

Sirota, Julius: *See—*
Davis, Irwin J.; and Sirota, Julius,3,535,295.

Sirota, Meerik Abramovich: *See—*
Bobrakov, Boris Petrovich; Sirota, Meerik Abramovich; Lerman, Filipp Khaimovich; Chumak, Dmitry Vladimirovich; Skuratov, Evgeny Iosifovich; and Lukianenko Grigory Grigorievich,3,541,755.

Sirrenberg, Walther: *See—*
Banholzer, Rolf; Heusner, Alex; Schulz, Werner; Sirrenberg, Walther; Walther, Gerhard; and Zeile, Karl,3,544,578.

Sirtl, Erhard, to Siemens Aktiengesellschaft. Method of producing highly pure crystalline, especially monocrystalline materials. 3,489,621, 1-13-70, Cl. 148-175.

Sirtl, Erhard, to Siemens Aktiengesellschaft. Method of producing highly pure arsenic trichloride. 3,505,011, 4-7-70, Cl. 23-98.

Sirtl, Erhard, to Siemens Aktiengesellschaft. Method of producing highly pure arsenic trichloride. 3,526,476, 9-1-70, Cl. 23-98.

Sirtl, Erhard; and Nickl, Julius, to Siemens Aktiengesellschaft. Face-to-face epitaxial deposition which includes baffling the source and substrate materials and the interspace therebetween from the environment. 3,493,444, 2-3-70, Cl. 148-175.

Sirtl, Erhard; and Paulik, Josef, to Siemens Aktiengesellschaft. Method of producing highly pure arsenic trichloride. 3,551,099, 12-29-70, Cl. 23-98.

Sirvet, Enn; Whelan, Edward J.; and Skrypek, John P., to Sun Chemical Corporation. Mandrel assembly for continuous can printing. 3,548,745, 12-22-70, Cl. 101-40.

Sisenwine, Samuel F., to American Home Products Corporation. 4-Amino-7-halo-6-pteridinecarboxylic acid esters and a process for their preparation. 3,509,150, 4-28-70, Cl. 260-251.5

Sisk, Francis J., to Westinghouse Electric Corporation. Electrodialysis apparatus. 3,493,488, 2-3-70, Cl. 204-301.

Sisler, Harry H.: *See—*
Grushkin, Bernard; and Sisler, Harry H.,3,488,164.

Sisneros, Thomas E.: *See—*
Berthold, Wolfgang K.; Coles, Donald K.; and Sisneros, Thomas E.,3,498,718.

Sisoyan, Ripsime Grigorievna: *See—*
Shapiro, Arkady Matveevich; Sisoyan, Ripsime Grigorievna; Alania, Anzor Markozovich; Shnaider, Teodor Maiseevich; and Goldman, Mikhail Grigorievich,3,551,790.

Sisson, Edwin D.; and Chapman, Richard M., to Bell, F. W., Inc. Heterodyned frequency nondestructive testing system utilizing a hall effect device for magnetic field sensing of an eddy current reaction magnetic field. 3,546,578, 12-8-70, Cl. 324-45.

Sisson, James B., to Procter & Gamble Company, The. Porous web impregnation employing capillary tubes and grooves. 3,536,524, 10-27-70, Cl. 117-120.

Sissons, Christopher R.: *See—*
Thomas, Gwilym G.; and Sissons, Christopher R.,3,551,271.

Sistare, George H.; and Chamer, Ernest S., to Handy & Harman. Fine grained white gold alloy. 3,512,961, 5-19-70, Cl. 75-165.

Sistrunk, Thomas O.: *See—*
Cook, Shirl E.; and Sistrunk, Thomas O.,3,515,739.

Sit 'N Rest Golf, Inc.:*See—*
Yokers, Henry P., 3,510,145.

Sitaud, Gilbert: *See—*
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Sitkowski, Eugene R.: *See—*
Galockin, Longin; Glazewski, Walter A.; and Sitkowski, Eugene R.,3,538,583.

Sitler, Carl L.: *See—*
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Sitler, Donald D.; and Christianson, William O., to UMC Industries, Inc. Destructor actuation circuit. 3,531,691, 9-29-70, Cl. 317-80.

Sitler, Glenn W.: *See—*
Loveland, Arthur F.; and Sitler, Glenn W.,3,498,237.

Sitney, Lawrence R. Combined radioisotope power and propulsion system. 3,528,245, 9-15-70, Cl. 60-203.

Sitnik, Nadezhda Ivanovna: *See—*
Kokhanskaya, Evgenia Mikhailovna; Teodorovich, Vladislav Antonovich; and Sadov, Ivan Alexandrovich,3,507,612.

Sitomer, James L., to Massachusetts Institute of Technology. Gyroscopic output axis torque compensation apparatus. 3,496,781, 2-24-70, Cl. 74-5.34

Sitomer, James L.; and Leis, Michael D., to Massachusetts Institute of Technology. Time sharing pulsed rebalancing system. 3,508,444, 4-28-70, Cl. 73-517.

Sitte, Hellmuth, to Reichert, C., Optische Werke Aktiengesellschaft. Ultramicrotome with means for adjusting the level of the liquid in the collecting vessel of the microtome. 3,540,335, 11-17-70, Cl. 83-167.

Sitter, Frederick M.: *See—*
Nutter, Raymond W.; and Sitter, Frederick M.,3,505,794.

Sittner, Weldon R.: *See—*
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Siverling, Michael M.: *See—*
Johnston, David L.; Siverling, Michael M.; and Wilson, Melvin G.,3,501,670.

Siverson, Robert D.: *See—*
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Sivertsen, David R., to Texas Instruments, Incorporated. Multilayer microelectronic circuitry techniques. 3,549,432, 12-22-70, Cl. 148-175.

Sivertsen, Richard: *See—*
Agerman, Erik; Essen, Edgar; Helmersson, Sven; Jonsson, Birger; Karsten, Olav; Sivertsen, Richard; and Tjernstrom, Ove,3,543,063.

Sivertson, Wilford E., Jr. Adaptive compression of communication signals. 3,508,152, 4-21-70, Cl. 325-42.

Sivilotti, Olivo G.; Tulett, Maurice W.; and Davies, William E., to Alcan Research and Development Limited. Rolling mill control. 3,534,571, 10-20-70, Cl. 72-8.

Sivin, Bernard J.; and Kapik, Julius, to North American Winfield Door Corporation. Door motor operator. 3,512,302, 5-19-70, Cl. 49-139.

Siwek, Erwin G., to General Electric Company. Hermetic seal closure for an electrochemical cell. 3,488,227, 1-6-70, Cl. 136-133.

Siwek, Erwin G.: *See—*
Hamlen, Robert P.; and Siwek, Erwin G.,3,496,018.

Siwko, Karol; and Thomas, Joseph Edward, to Sylvania Electric Products, Inc. Transistorized control and amplifier circuitry for a television receiver. 3,549,802, 12-22-70, Cl. 178-7.3

Siwko, Karol: *See—*
Rhee, Dong W.; and Siwko, Karol,3,520,991.

Sixsmith, Herbert, to National Research Development Corporation. Gas bearing. 3,523,715, 8-11-70, Cl. 308-10.

Sixt, Gerhard; and Ziegler, Eugen, to Leitz, Louis. Spring biased follower. 3,517,854, 6-30-70, Cl. 220-93.

Sixt, Marty E.: *See—*
Martin, Ronald C.; and Sixt, Marty E.,3,551,007.

Size, Harrie Arthur, to Daybrook-Ottawa Corporation. Powered fold under lift gate. 3,498,481, 3-3-70, Cl. 214-77.

Sizelove, John R.: *See—*
Love, John A., III; and Sizelove, John R.,3,506,830.

Sizemore, Eddie E., to Techniservice Corporation, mesne. Strand treatment. 3,503,105, 3-31-70, Cl. 28-72.14

Sizemore, Kenneth: *See—*
Ford, Floyd E.; Liwski, Piotr P. M.; Potter, Nelson H.; and Sizemore, Kenneth,3,505,584.

Sizer, John H., Jr.: *See—*
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Sizer, Phillip S. Method of operating a well installation. 3,494,420, 2-10-70, Cl. 166-250.

Sizer, Phillip S., to Otis Engineering Corporation. Well apparatus. 3,542,125, 11-24-70, Cl. 166-0.6

Sizer, Phillip S.; and Schwegman, Harry E. Well apparatus and setting tool. 3,498,376, 3-3-70, Cl. 166-120.

Sizer, Stuart W., to Heath Company. Panel construction for radio receiver or the like. 3,513,805, 5-26-70, Cl. 116-124.4

Sjoberg, Berndt Olof Harald: *See—*
Bamberg, Peter; Ekstrom, Bertil Ake; and Sjoberg, Berndt Olof Harald,3,531,469.
Helgstrand, Ake John Erik; Sjoberg, Berndt Olof Harald; and Stjernstrom, Nils Erik,3,501,573.

Sjoberg, Lars-Borje: *See—*
Ehrensvard, Carl Henrik Gosta; Lofqvist, Bo Vilhelm; and Sjoberg, Lars-Borje,3,491,080.

Sjoberg, Nils Gunnar: *See—*
Munters, Carl Georg; and Sjoberg, Nils Gunnar,3,501,558.

Sjoberg, Nils W., to Prime Manufacturing Company. Tape laying machine. 3,533,116, 10-13-70, Cl. 12-59.5

Sjodin, Einar, to Munck International A/S. Arrangement in or relating to vacuum lifter. 3,515,424, 6-2-70, Cl. 294-64.

Sjogreen, Carl-Axel E.: *See—*
Flodin, Per G. M.; and Sjogreen, Carl-Axel E.,3,510,525.

Sjogren, John K., to Sweco, Inc. Material treatment apparatus with rotary stirrer in vibratory container. 3,539,117, 11-10-70, Cl. 241-172.

Sjostrand, Gerald D., to San Angelo Die Casting and Manufacturing Co., Inc. Gun rack for vehicles. 3,497,077, 2-24-70, Cl. 211-64.

Sjostrand, Gunnar Olof. Striking mechanisms for sound production. 3,512,442, 5-19-70, Cl. 84-243.

Sjostrand, Monica: *See—*
Hojfors, Rune J.V.; and Sjostrand, Monica,3,516,962.

Sjostrom Automations, Inc.: *See—*
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Sjostrom, Bobby. Hourglass. 3,501,911, 3-24-70, Cl. 58-144.

Sjostrom, John E., Company, Inc.: *See—*
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Sjostrom, Lars Werner: *See—*
Andersson, Leif Walter; Hollstrom, Stig Roland; and Sjostrom, Lars Werner,3,510,688.

Sjostrom, Lars Werner, to Telefonaktiebolaget L M Ericsson. Method and arrangement for choosing a target with a definite order number by means of a target seeker. 3,508,258, 4-21-70, Cl. 343-5.

Sjostrom, Robert L., to Sjostrom Automations, Inc. Combination folder having selective delivery to plural cross-folders. 3,531,102, 9-29-70, Cl. 270-62.

Sjotun, Kyrre Guttorm; and Sturlason, Leif Viggo, to Danfoss A/S. Motor, pump and blower system for oil burner. 3,514,241, 5-26-70, Cl. 431-30.

Skaarup, Ole: *See—*
Maddex, Phillip J.; and Skaarup, Ole,3,536,208.

Skadulis, Arnis, to Minnesota Mining and Manufacturing Company. Copper compound-containing algicidal surfacing and process. 3,528,842, 9-15-70, Cl. 117-27.

Skagen, David G. Fluid motor. 3,549,289, 12-22-70, Cl. 418-239.

Skagga, Frank L.: *See—*
Burch, Jack J.; and Skagga, Frank L.,3,539,242.

Skaggs, Billy J. Vehicle power take-off and brake control. 3,516,525, 6-23-70, Cl. 192-4.

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McIntyre, Maurice J.; and Rennie, David G., 3,543,946.
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Rennie, David G.; and McIntyre, Maurice J., 3,531,000.

Skagius, Kurt T. J.; and Akerblom, Eva B., to Pharmacia AB. Novel 2-substituted 5-nitrofurans and a process for the preparation thereof. 3,514,451, 5-26-70, Cl. 260-240.

Skal, Michal: *See—*
Lienhard, Otto E.; and Skal, Michal,3,529,209.

Skala, George F., to General Electric Company. Ammonia detection apparatus and method. 3,503,711, 3-31-70, Cl. 23-232.

Skala, Stephen F.: *See—*
Cole, Joseph I.; Mirtin, William C.; and Skala, Stephen F.,3,528,479.

Skaletzky, Louis L., to Upjohn Company, The. 2-Aminocycloalkyl hydroquinones, esters, ethers and N-oxides thereof, and a process for preparing the same. 3,496,181, 2-17-70, Cl. 260-268.

Skaletzky, Louis L., to Upjohn Company, The. α-Substituted-(2,5-diacyloxyphenyl)acetaldehyde. 3,501,519, 3-17-70, Cl. 260-476.

Skamfer, Robert E.: *See—*
Baker, Donal E.; and Skamfer, Robert E.,3,551,789.

Skaperdas, George T.; Schreiner, Warren C.; and Kurzius, Shelby C., to Pullman Incorporated, mesne. Production of a halogenated hydrocarbon. 3,536,770, 10-27-70, Cl. 260-659.

Skaptason, Joseph B.: *See—*
Schwartz, Herbert; and Skaptason, Joseph B.,3,507,904.
Schwartz, Herbert; and Skaptason, Joseph B.,3,538,156.

Skarada, Thomas E., to Sun Oil Company. Novel solvent for the extraction of aromatic hydrocarbons from hydrocarbon mixtures and the process for use thereof. 3,546,108, 12-8-70, Cl. 208-323.

Skarbo, Roald R., to Kennecott Copper Corporation. Complex sulfites of copper and iron and the method of preparing them. 3,515,512, 6-2-70, Cl. 23-129.

Skarman, Runo H.; and Nilsson, Stig G. H., to Helsinglorgs Gummifabriks Aktiebolag Tretorn. Device in mixing mills. 3,522,625, 8-4-70, Cl. 18-2.

Skarshaug, Paul E. Portable current intensity detection for aerial booms. 3,514,695, 5-26-70, Cl. 324-54.

Skatsche, Othmar; and Feichtinger, Gerhard, to List, Hans. Cylinder head for internal combustion engines. 3,547,086, 12-15-70, Cl. 123-41.77

Skatsche, Othmar: *See—*
Scheiterlein, Andreas; and Skatsche, Othmar,3,540,425.

Skattebol, Lars, to Union Carbide Corporation. Preparation of olefinic compounds and derivatives thereof. 3,488,399, 1-6-70, Cl. 260-677.

Skau, Evald L.: *See—*
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Mod, Robert R.; Magne, Frank C.; and Skau, Evald L.,3,519,661.
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Mod, Robert R.; Magne, Frank C.; and Skau, Evald L.,3,538,123.

Skeates, Ronald E. J., to Plessey Company Limited, The. Hydraulic actuating systems. 3,516,445, 6-23-70, Cl. 137-625.67

Skeel, James C., to Case, J. I., Company. Swivel seat. 3,508,733, 4-28-70, Cl. 248-415.

Skeen, Andrew E.: *See—*
Rohde, Raymond; and Skeen, Andrew E.,3,539,512.

Skeen, Leo B.: *See—*
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Skeggs, Leonard T., to Technicon Corporation. Flow cell device. 3,518,008, 6-30-70, Cl. 356-181.

Skehan, John Tevlin, to Du Pont de Nemours, E. I., and Company. Grease composition. 3,505,229, 4-7-70, Cl. 252-54.

Skelcey, James S.; Rumminger, James E.; and Groves, Kenneth O., to Dow Chemical Company, The. Fluoroalkoxide derivatives of thallium(1). 3,494,946, 2-10-70, Cl. 260-429.

Skelcey, James S.; Rumminger, James E.; and Groves, Kenneth O., to Dow Chemical Company, The. Fluoroalkoxide derivatives of hafnium. 3,505,368, 4-7-70, Cl. 260-429.3

Skelley, John W.: *See—*
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Skelley, Joseph B., Jr. Ornaments. 3,549,465, 12-22-70, Cl. 161-13.

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Skelton, Robert F., to Mix-Mill, Inc. Automatic valve for sealed silo. 3,532,233, 10-6-70, Cl. 214-17.

Skenderoff, Claude; Symaniec, Leonidas; and Darricau, Jacques Marcel, to Compagnie Francaise Thomson Houston-Hotchkiss Brandt. Optical correlation system for received radar signals in pseudo-randomly coded radar systems. 3,526,893, 9-1-70, Cl. 343-5.

Skendrovic, Lawrence. Domestic refuse and garbage disposal system. 3,506,414, 4-14-70, Cl. 44-1.

Skendrovich, Steve G.; and Bauer, Jack N., to Koppers Company, Inc. Process for preparing ABS polymers. 3,536,784, 10-27-70, Cl. 260-876.

Skerritt, Roy P. Air-rotated power humidifier. 3,497,187, 2-24-70, Cl. 261-92.

Skerritt, Roy P. Externally-adjustable humidifier float valve. 3,508,574, 4-28-70, Cl. 137-451.

SKF Industries, Inc.: *See—*
Blad, Nils August; and Bratt, Axel Erland, 3,531,146.
Spence, Thomas E.; and Guyer, Raymond A., 3,519,317.
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Skiatron Electronics & Television Corporation: *See—*
Shanahan, William J.; Vetter, Richard F.; and Sacks, Edward ., 3,538,243.

Skibicki, Zygmunt, to Commissariat a l'Energie Atomique, and Instytut Badan Jadrowych. Device for transferring granular materials. 3,527,428, 9-8-70, Cl. 243-1.

Skiens, William Eugene, to Dow Chemical Company, The. Method for enhancing permeability of separatory membranes. 3,494,780, 2-10-70, Cl. 117-63.

Skiens, William Eugene, to Dow Chemical Company, The. Permeable separatory membranes. 3,532,527, 10-6-70, Cl. 106-176.

Skiera, Werner, to Schloemann Aktiengesellschaft. Shears for parting continuously-cast billets. 3,534,648, 10-20-70, Cl. 83-694.

Skierski, Edwin J., to Parker-Kalon Corporation. Complementary finishing dies. 3,517,542, 6-30-70, Cl. 72-469.

Skierski, Edwin J., to Parker-Kalon Corporation. Method of making rotary threaded fasteners. 3,550,255, 12-29-70, Cl. 29-557.

Skil Corporation: *See—*
Etzkorn, Elmer F., 3,549,160.
Frenzel, Carl J., 3,548,136.
Gawron, Alex F.; and Schrack, Frank C., 3,506,898.
Gawron, Alex F.; Kaman, Frank A.; and Schrack, Frank C., 3,530,350.
Palmer, Gerald W.; and Beach, Rex E., 3,505,831.
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Skildum, John D., to Honeywell Inc. Photoionization device with electrodes attached to exterior of envelope. 3,535,576, 10-20-70, Cl. 313-112.

Skill-Di, Inc.: *See—*
Reitherman, Ralph W., 3,530,321.

Skinner, Angus E.: *See—*
Bishop, Alan W.; and Skinner, Angus E.,3,505,860.

Skinner, Bradley, to Phillips Petroleum Company. Fibrillation. 3,490,663, 1-20-70, Cl. 225-93.

Skinner, Burrhus F., to Meredith Corporation. Teaching device with invisible answer indicator. 3,516,177, 6-23-70, Cl. 35-9.

Skinner, Charles M. Snow making system. 3,494,559, 2-10-70, Cl. 239-2.

Skinner, David L., to Procter & Gamble Company, The. Reactions of alkali metal tetraalkyl- aluminum compounds with benzyl halides. 3,522,322, 7-28-70, Cl. 260-668.

Skinner, Dean W.; and Skocz, Stanley J., Jr., to International Business Machines Corporation. Ceramic substrate snapping tool. 3,507,430, 4-21-70, Cl. 225-103.

Skinner, Eugene S.: *See—*
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Skinner, Francis H.: *See—*
Snyder, Joseph T.; Maxfield, Charles C.; Skinner, Francis H.; and Whitwell, James A.,3,517,954.

Skinner, George C.: *See—*
Cope, Geoffrey W.; and Skinner, George C.,3,499,545.
Cope, Geoffrey W.; and Skinner, George C.,3,506,139.

Skinner, Harold A. Liquid additive for alkaline paint strippers. 3,551,340, 12-29-70, Cl. 252-156.

Skinner Irrigation Company, The: *See—*
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Skinner, Jerald Paul, to Independent General, Incorporated. Foam material cutter. 3,491,631, 1-27-70, Cl. 83-5.

Skinner, Kenneth R.: *See—*
Onksen, George W.; and Skinner, Kenneth R.,3,535,680.

Skinner, Kenneth R., to General Motors Corporation. Vehicle signaling systems. 3,503,042, 3-24-70, Cl. 340-67.

Skinner, Kenneth R.; and Young, Jing-Jue. to Westinghouse Electric Corporation. Fine tuning indicator. 3,526,707, 9-1-70, Cl. 178-5.8

Skinner, Loren R.: *See—*
Boyd, Edward S.; Mallory, Mason; and Skinner, Loren R.,3,519,224.

Skinner, Norton D.: *See—*
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Chung, Kwangho; Goepfrich, George A.; and Milano, Edward J., 3,523,631.
Clay, Robert B., 3,502,096.
Correll, Robert E.; and Wroble, Francis Norman, 3,529,226.
Padula, Lawrence D., 3,523,555.
Sorrow, Stephen J., 3,521,851.

Skinner, Robert Ivan, to New Zealand Government Property Corporation. Accelerographs and accelerometers. 3,550,437, 12-29-70, Cl. 73-71.3

Skinner, Robert L.: *See—*
Anderson, John C.; and Skinner, Robert L.,3,520,494.

Skinner, Robert L., to Bendix Corporation, The. Method of slitting a continuous strip of metal and article formed therefrom. 3,540,395, 11-17-70, Cl. 113-116.
Zilkowsky, Eugene J.; Sanders, Wilber E., Jr.; Fischer, Frederick R.; Skinner, Robert L.; and Westrom, Alfred,3,517,532.

Skinner, Robert Thomas John, to Lucas, Joseph, (Industries) Limited. Control mechanism for fuel injection device. 3,487,821, 1-6-70, Cl. 123-140.

Skinner, Robert Thomas John, to Lucas, Joseph, (Industries) Limited. Fuel injection devices. 3,491,738, 1-27-70, Cl. 123-139.

Skinner, Robert Thomas John, to Lucas, Joseph, (Industries) Limited. Reciprocating liquid pumps. 3,500,758, 3-17-70, Cl. 103-171.

Skinner, Robert Thomas John, to Lucas, Joseph, (Industries) Limited. Fluid flow control devices. 3,500,851, 3-17-70, Cl. 137-81.5

Skinner, Robert Thomas John, to Lucas, Joseph, (Industries) Limited. Liquid displacement pumps. 3,516,758, 6-23-70, Cl. 415-126.

Skipp, Kenneth Valentine. Coupling pieces. 3,492,034, 1-27-70, Cl. 287-189.36

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Skirpan, Stephen J., 3,534,242.

Skirpan, Stephen J., to Skirpan Electronics, Inc. Modular control units for light intensity control systems. 3,534,242, 10-13-70, Cl. 321-16.

Skirpan, Stephen J.; and Chester, John K., to Skirpan Electronics, Inc. Control apparatus for electronic dimmers. 3,534,224, 10-13-70, Cl. 315-296.

Skirvin, Clifford D., to Microdot, Inc. Luminescent gas tube including a gas permeated phosphor coating. 3,536,945, 10-27-70, Cl. 313-109.

Skirvin, Clifford D.; Zonis, Jerome; and Ketola, John H., to Microdot, Inc. Frequency controlled enhancement of light emission. 3,525,900, 8-25-70, Cl. 315-98.

Skisearch, Inc.: *See—*
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Skladanek, John A., to Waukee Engineering Company. Rotatable apparatus for cleaning aricles. 3,528,438, 9-15-70, Cl. 134-112.

Sklarchuk, Jack C.; and Kobie, William F., to ESB Incorporated. Method for making thin, microporous fluorocarbon polymer sheet material. 3,518,332, 6-30-70, Cl. 264-49.

Sklenar, Wenceslas F. Electric shaver. 3,494,031, 2-10-70, Cl. 30-43.6

Skobel, Max Edison; and Hetherington, Alexander C., to Dow Corning Corporation. Apparatus for manufacturing sheathed flexible sealing members. 3,531,829, 10-6-70, Cl. 18-13.

Skochdopole, Richard E.; and Rubens, Louis C., to Dow Chemical Company, The. High density polyolefin foams. 3,491,032, 1-20-70, Cl. 260-2.5

Skochdopole, Richard E.; and Rubens, Louis C., to Dow Chemical Company, The. Fabricating expandable thermoplastic resinous material. 3,505,249, 4-7-70, Cl. 260-2.5

Skocz, Stanley J., Jr.: *See—*
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Skoda, Jan: *See—*
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Skog, Steinar: *See—*
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Skoggard, Bruno Bengt; Post, William Clinton; and Weierter, Edward Peter, to American Cyanamid Company. Flexible flattened tubular open-ended article. 3,500,869, 3-17-70, Cl. 138-130.

Skoglund, Harold N.; and Mlot-Fijakowski, Adolph, to Magnaflux Corporation. Method for purifying penetrant waste liquors. 3,528,284, 9-15-70, Cl. 73-104.

Skoler, George A.; and Hillas, Kenneth M., to Union Carbide Corporation. Method of making a nonwoven fabric. 3,538,564, 11-10-70, Cl. 28-72.2

Skoli, Sigmund P.; Witt, Chester J.; and Mojonnier, Harry G., to Mojonnier Bros. Co. Venting valve for a beverage filler. 3,520,321, 7-14-70, Cl. 137-116.

Skolnick, Michael L.: *See—*
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Skoog, Ivan H., to Minnesota Mining and Manufacturing Company. Method of etching a polyester film. 3,497,406, 2-24-70, Cl. 156-2.

Skoog, Ivan H., to Minnesota Mining and Manufacturing Company. Diazo dyestuffs. 3,506,641, 4-14-70, Cl. 260-181.

Skoog, Lennart: *See—*
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Skoog, Per Olof, to Coe Manufacturing Company, The. Patching apparatus and method. 3,545,648, 12-8-70, Cl. 221-106.

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Skopalik, Josef: *See—*
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Skora, Robert F.: *See—*
Mattes, William J.; Olson, Virginia A.; and Skora, Robert F.,3,499,447.
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Skorcz, Joseph A., to Colgate-Palmolive Company. Pharmaceutical compositions containing oximes of benzocyclobutene and method for effecting skeletal muscle relaxation. 3,529,063, 9-15-70, Cl. 424-327.

Skorcz, Joseph A., to Colgate-Palmolive Company. Novel benzocyclobutene derivatives. 3,539,575, 11-10-70, Cl. 260-281.

Skorcz, Joseph A.; Suh, John T.; and Judd, Claude I., to Colgate-Palmolive Company. 3-Aminoalkyl derivatives of 2,1-benzisothiazoline. 3,528,989, 9-15-70, Cl. 260-304.

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Skorcz, Joseph I.; Suh, John T.; and Judd, Claude I., to Colgate-Palmolive Company. 1-Aminoalkyl derivatives of 2,1-benzisothiazoline. 3,528,990, 9-15-70, Cl. 260-304.

Skorheim, Robert D., to United States of America, Navy. Approximating the networks for a beamforming transducer array. 3,518,675, 6-30-70, Cl. 340-5.

Skorokhodov, Leonid Nikolaevich: *See—*
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Skoultchi, Martin; Fertig, Joseph; and Goldberg, Albert I., to National Starch and Chemical Corporation. Suntan composition and method containing alkali soluble polymeric sun screening agents. 3,529,055, 9-15-70, Cl. 424-47.

Skoultchi, Martin; Fertig, Joseph; and Nass, Leonard I., to National Starch and Chemical Corporation. Ethylenically unsaturated derivatives of 2- (2-hydroxyphenyl) benzotriazole and polymers therefrom. 3,493,539, 2-3-70, Cl. 260-47.

Skousgaard, Chris: *See—*
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Skowronski, George Victor, to American Can Company. Frame holder and carton therefor. 3,514,014, 5-26-70, Cl. 221-46.

Skoyles, Derek Robert, to U.S. Philips Corporation, mesne. Antilock brake system. 3,524,684, 8-18-70, Cl. 303-21.

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Perets, Maxim Izrailevich; Bulgakov, Jury Vladimirovich; Skrastin, Sigurd Yanovich; and Peisakhovich, Jury Ilich,3,502,966.

Skrebowski, Jerzy Konrad; and Williamson, John, to Imperial Chemical Industries Limited. Recovery of paraxylene crystals under refrigeration and sonic vibration conditions. 3,513,212, 5-19-70, Cl. 260-674.

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Skripek, Milan; Ludlam, Leslie L.; Whitehead, Kenneth E.; and Kling, Nelson G., to Atlantic Richfield Company. Process and system for producing synthetic crude from coal. 3,503,866, 3-31-70, Cl. 208-10.

Skrivan, Joseph Francis, to American Cyanamid Company. Synthesis of anatase TiO_2. 3,488,149, 1-6-70, Cl. 23-202.

Skrivanek, Miles, Jr., to Potter Instrument Company, Inc. Speed control system for a low inertia D.C. motor. 3,488,756, 1-6-70, Cl. 318-331.

Skrydstrup, Ole, to Central Dynamics, Ltd. Combined hue and saturation control. 3,534,157, 10-13-70, Cl. 178-5.4

Skrydstrup, Ole: *See—*
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Ross, John D.; and Skrydstrup, Ole,3,549,901.

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Sandborn, Edmund; and Azzopardi, Alfred, 3,532,020.

Skuba, Thadeus: *See—*
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Skubiak, John J.; Toth, John A.; and Mandula, Joseph M., Jr., to Republic Steel Corporation. Automatic billet inspector including markers located on either side of the sensor in direction of scan. 3,512,081, 5-12-70, Cl. 324-37.

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Skubic, Leroy F., to Paltier Corporation, The. Pallet tiering frame with positive lock to pallet. 3,500,770, 3-17-70, Cl. 108-53.

Skupien, Frank C.: *See—*
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Aiken, Howard H.; Parvin, Allan I.; Janowsk Seymour; Taitel, Charles M.; and Skurnik, Harold,3,507,020.
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Skvortsov, Boris Vasilievich: *See—*
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Skyles, Robrt T.; Quinn, David L.; and Waldman, Leonard F., to Baxter Laboratories, Inc. Drainage apparatus. 3,537,455, 11-3-70, Cl. 128-275.

Slaats, Mathew A.: *See—*
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Slack, John, to Gray Tool Company. Method and apparatus for field reinforcement of columnar structures, particularly offshore drilling and production platforms. 3,496,728, 2-24-70, Cl. 61-46.

Slack, Philip T., to Plasticisers Limited. Machines for producing synthetic yarn. 3,546,873, 12-15-70, Cl. 57-93.

Slade, Edwin. Reinforced plastic tube and gun barrel construction incorporating an imbedded expandable woven screen lining. 3,517,585, 6-30-70, Cl. 89-16.

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Slade, Owen G., to White, J. Samuel, & Company Limited. Propulsion unit for a vessel. 3,543,713, 12-1-70, Cl. 115-12.

Slade, Woodrow W., to Owens-Illinois, Inc. Glass manufacturing method. 3,545,988, 12-8-70, Cl. 106-52.

Slagel, Robert C., to Ashland Oil & Refining Company. Acrylic aminimides. 3,527,802, 9-8-70, Cl. 260-561.

Slagel, Robert C.: *See—*
Grimm, Robert A.; and Slagel, Robert C.,3,501,514.

Slagel, Roger D.: *See—*
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Kah, Carl L.C., Jr.; and Slagel, Roger D.,3,524,470.

Slagell, Lloyd D.: *See—*
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Slagg, James E., to Allen-Bradley Company. Panel mounted, variably adjusted electrical component. 3,500,282, 3-10-70, Cl. 338-197.

Slagg, Norman: *See—*
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Slagle, Edward, to Picker Corporation, mesne. X-ray spot filmer wherein the grid is carried by the cassette tray. 3,521,061, 7-21-70, Cl. 250-66.

Slagle, Harriet S., to Ashland Oil & Refining Company. Alignment tool or device for cooling blade. 3,489,896, 1-13-70, Cl. 250-49.5

Slagle, Knox A.; and Carter, Lloyd G., to Halliburton Company. Method of improving bond strength. 3,502,148, 3-24-70, Cl. 166-292.

Slagle, Robert J.; Petermann, James P.; Wilson, Russell W.; and Steffensen, Leslie M., to Georgia-Pacific Corporation. Apparatus for loading stiff sheet material on moving conveyers. 3,504,782, 4-7-70, Cl. 198-29.

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Wilson, Russell W.; Steffensen, Leslie M.; Petermann, James P.; and Slagle, Robert J.,3,490,614.

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Knudsen, Erik Stenberg, 3,493,774.

Slakis, Albin Joseph; Kuhr, Wayne Kenneth; and Hughes, Richard Lawrence, to Abbott Laboratories, mesne. Cyclohexylsulfamic acid as a taste improver for raw potato products. 3,501,315, 3-17-70, Cl. 99-100.

Slana, Matthew F., to Bell Telephone Laboratories, Incorporated. Direct current compensation circuit for transformer couplings. 3,504,127, 3-31-70, Cl. 179-16.

Slana, Matthew F., to Bell Telephone Laboratories, Incorporated. Electronic drive circuit employing successively enabled multistate impedance elements. 3,505,527, 4-7-70, Cl. 250-214.

Slana, Matthew F.; and Waggener, Herbert A., to Bell Telephone Laboratories, Incorporated. Switching network. 3,504,131, 3-31-70, Cl. 179-18.

S, L, and F Enterprises, Incorporated: *See—*
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Slant-Fin Corporation: *See—*
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Slapnik, Joseph, to Sinclair-Koppers Company. Foam plastic shipping container. 3,489,314, 1-13-70, Cl. 220-97.

Slass, Jerome. Automatic beverage dispensing system. 3,530,907, 9-29-70, Cl. 141-167.

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Slater Electric Inc.: *See—*
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Slater, Graham: *See—*
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Slater, Joseph N., Jr.: *See—*
Ugelow, Isidore; and Slater, Joseph N., Jr.,3,511,864.

Slater, Keith, 1/3 to Horger, Richard N., and 1/3 to Bango, Joseph, Jr. Apparatus and method for detecting the carbon monoxide content of a gas mixture. 3,518,058, 6-30-70, Cl. 23-232.

Slater, Olin. Flashlight attachment for guns. 3,513,581, 5-26-70, Cl. 42-1.

Slater, Owen C.; Kleinke, Donald F.; and Richter, Walther, to Dittmore-Freimuth Corporation. Insecticide fogger apparatus. 3,496,668, 2-24-70, Cl. 43-129.

Slater, Thomas S., to Slater Electric Inc. Electrical switch of the toggle type with the toggle also serving as the movable contact and supported by a conductive groove. 3,519,776, 7-7-70, Cl. 200-154.

Slater, William L., to Texaco Inc. Synthesis gas process. 3,520,823, 7-21-70, Cl. 252-373.

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Schlinger, Warren G.; Slater, William L.; and Dille, Roger M.,3,528,930.
Schlinger, Warren G.; Slater, William L.; and Dille, Roger M.,3,545,926.

Slater, William M., to Conenco International Limited. Bridge bearings with plates having non-planar ends. 3,544,176, 12-1-70, Cl. 308-3.

Slater, William M.: *See—*
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Slatin, Harvey L., to Timax Associates. Alumina from low grade aluminiferous ores and minerals. 3,489,514, 1-13-70, Cl. 23-142.

Slatten, William: *See—*
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Slattery, Brian R.: *See—*
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Slaugh, Lynn H.: *See—*
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Slaughter, Byers, Icenhour & Jackson: *See—*
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Slaughter, Gerald M.: *See—*
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Slavens, Bert M. Wall construction with compressible splines. 3,527,005, 9-8-70, Cl. 52-227.

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Slavik, William H., to Motorola, Inc. Automatic gain control circuit for controlling the amplitude of subcarrier oscillator signals. 3,502,800, 3-24-70, Cl. 178-5.4

Slavik, William H., to Motorola, Inc.. Demodulator circuit. 3,549,794, 12-22-70, Cl. 178-5.4

Slavik, William H.: *See—*
Reichard, Gordon E.; and Slavik, William H.,3,537,012.

Slavin, Michael; and Carp, Ralph W., to Bendix Corporation, The. Automotive anti-skid control syatem. 3,494,671, 2-10-70, Cl. 303-21.

Slavinsky, Nikolai Fedorovich: *See—*
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Slavsky, Robert J., to Shaw & Slavsky, Inc. Price indicator. 3,513,578, 5-26-70, Cl. 40-96.

Slawinski, Richard C.; and Meyer, William, to Emco Wheaton, Inc. Flow control valve. 3,520,510, 7-14-70, Cl. 251-24.

Slawsby, Nathan: *See—*
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Slawson, Richard S., to Dahl, George W., Company, Inc. Demodulator. 3,497,720, 2-24-70, Cl. 307-235.

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Pritchard, John P., Jr.; Queen, Antoinette G.; Pierce, Joe T.; and Slay, Buford G., Jr.,3,540,954.

Slay, Reginald Arthur. Motor-driven wheeled vehicles. 3,520,378, 7-14-70, Cl. 180-21.

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Slaybaugh, Lyle, to Kellogg Company. Production of snack product. 3,512,990, 5-19-70, Cl. 99-81.

Slayden, Murrel D.; and Staley, Hugh W., to United States of America, National Aeronautics and Space Administration. Pulse amplitude and width detector. 3,535,644, 10-20-70, Cl. 328-110.

Slayden, Murrel D.; and Staley, Hugh W., to United States of America, National Aeronautics and Space Administration. Pulse rise time and amplitude detector. 3,543,159, 11-24-70, Cl. 324-181.

Slaymaker, Frank H., to General Dynamics Corporation. Sampled clipped speech TDM transmission system. 3,505,601, 4-7-70, Cl. 325-38.

Sleater, Roland G.; and Reed, Charles G., to Signal Computer Corporation. Semiconductor relay switching circuit. 3,517,217, 6-23-70, Cl. 307-252.

Slechta, Alfred F.: *See—*
Rice, Archie H.; Slechta, Alfred F.; and Hsiung, Andrew K.,3,511,380.

Slechta, John S.: *See—*
Dubowicz, Palemon W.; and Slechta, John S.,3,550,011.

Slechta, John S., to United States of America, Army. Regenerative frequency modulation detector with voltage-controlled reactance controlled by output. 3,516,000, 6-2-70, Cl. 329-140.

Sledge, Jesse Herbert, to Sutliff Tobacco Company. Cigarette structure, wrapper and method. 3,512,538, 5-19-70, Cl. 131-10.

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Sleege, Gary A., to United States of America, Atomic Energy Commission. Time of flight to kinetic energy converter for a nuclear particle spectrometer. 3,519,822, 7-7-70, Cl. 250-83.1

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Slemmons, John W.; and Zachry, Clyde L., to North American Rockwell Corporation. Micro-elongation tester. 3,533,284, 10-13-70, Cl. 73-95.

Slepetys, Richard A., to National Lead Company. Fluid energy mill for milling friable materials. 3,514,043, 5-26-70, Cl. 241-5.

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Sletten, Andreas M.; Uman, Martin A.; Orville, Richard E.; and Venturino, Anthony J., to Westinghouse Electric Corporation. High-voltage direct current circuit interrupter. 3,544,843, 12-1-70, Cl. 317-11.

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Sletzinger, Meyer; and Gal, George, to Merck & Co., Inc. 3-(Hydroxyphenyl)-4-aminovalerates. 3,551,476, 12-29-70, Cl. 260-471.

Sletzinger, Meyer; and Reinhold, Donald, to Merck & Co., Inc.16β-Methyl-16α,17α-epoxy pregnenolone and the 3-acylates thereof. 3,547,913, 12-15-70, Cl. 260-239.55
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Sloan, Frank Philip. Siphon valve. 3,510,884, 5-12-70, Cl. 4-42.
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Sloane, Edwin; Poe, Edgar Allan, III; Fletcher, Martin; Wexler, Richard; and Sackman, Robert, to Time Data Corporation. Computer memory transfer system. 3,514,762, 5-26-70, Cl. 340-172.5
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Smith, David F. Resorbable surgical sutures from cellulose acid ethers. 3,499,449, 3-10-70, Cl. 128-335.5

Smith, David F. Moisture-resistant plaster of Paris bandages containing water-swellable gums. 3,523,805, 8-11-70, Cl. 106-112.

Smith, David F. Plaster of Paris bandage manufacture. 3,523,806, 8-11-70, Cl. 106-114.

Smith, David F. Resorbable surgical sutures from fibrous proteins. 3,527,225, 9-8-70, Cl. 128-335.5

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Smith, Donald O.; and Harte, Kenneth J., to Massachusetts Institute of Technology. Content-addressed memory using optical interrogation. 3,500,354, 3-10-70, Cl. 340-174.

Smith, Donald P. Continuous popping apparatus and method. 3,512,989, 5-19-70, Cl. 99-81.

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Smith, Edward A., to GAF Corporation. Filter bag restrainer. 3,526,323, 9-1-70, Cl. 210-460.
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Smith, Edwin J.; Beale, Louis C., Jr.; and Austin, Lowell W., to National Steel Corporation. Corrosion resistant ferrous metal articles and method of preparing the same. 3,526,486, 9-1-70, Cl. 29-183.5
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Smith, Sidney R., Jr., to General Electric Company. Vacuum fuse and method of making same. 3,510,819, 5-5-70, Cl. 337-246.
Smith, Sidney R., Jr., to General Electric Company. Method of manufacturing evacuated devices. 3,531,175, 9-29-70, Cl. 316-25.
Smith, Sidney R., Jr., to General Electric Company. Triggered vacuum gap overvoltage protective device. 3,538,382, 11-3-70, Cl. 317-16.
Smith, Sidney R., Jr., to General Electric Company. Direct current lightning arrester with automatic arc quenching means. 3,543,097, 11-24-70, Cl. 317-68.
Smith, Sidney Z.: *See—*
Swett, James B.; and Smith, Sidney Z.,3,526,138.

Smith, Silas S., Jr.; and Holbrook, Donald. Paracervical and pudendal appliance. 3,487,834, 1-6-70, Cl. 128-218.

Smith, Spurgeon E., to Tacor, Inc. Stepwave converter. 3,525,941, 8-25-70, Cl. 325-442.

Smith, Stanley A.; and Rasmussen, Warren W., to Chicago Rawhide Manufacturing Company. Mold for bonded seals. 3,490,099, 1-20-70, Cl. 18-36.

Smith, Stanley Babcock, Jr.: *See—*
Boling, Eldon; Smith, Stanley Babcock, Jr.; and Zindler, Jerrold,3,525,476.

Smith, Stanley Babcock, Jr.; and Zindler, Jerrold, to Instrumentation Laboratory, Inc. Adjustable slit system for use in spectroanalysis apparatus. 3,508,813, 4-28-70, Cl. 350-275.

Smith, Stanley Desmond; and Houghton, John Theodore, to National Research Development Corporation. Radiometer apparatus. 3,498,132, 3-3-70, Cl. 73-355.

Smith, Stanley K., to Black and Decker Manufacturing Company, The. Composite article and method of manufacture. 3,511,137, 5-12-70, Cl. 92-171.

Smith, Stanley K., to Black and Decker Manufacturing Company, The. Vane construction for pneumatic device. 3,512,908, 5-19-70, Cl. 418-179.

Smith, Stanley K., to Black and Decker Manufacturing Company, The. Cylinder for fluid pump motor and the like and method of making. 3,514,238, 5-26-70, Cl. 418-153.

Smith, Stephen J., to Smith-Schreyer & Assoc., Inc. End seal for splice case. 3,545,773, 12-8-70, Cl. 277-199.

Smith, Stephen J.: *See—*
Spiller, Lester L.; and Smith, Stephen J.,3,537,426.

Smith, Stuart B., to Wooley, John, W. Island check valve. 3,533,438, 10-13-70, Cl. 137-512.1

Smith, T. J., & Nephew Limited: *See—*
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Smith, Terrill D., to Monsanto Company. Method of controlling growth of plants. 3,539,331, 11-10-70, Cl. 71-71.

Smith, Thaddeus J.: *See—*
Peterson, Ralph N.; McCampbell, Donald; and Smith, Thaddeus J.,3,505,174.

Smith, Theodore A. Method for preparing color separation printing negatives. 3,488,190, 1-6-70, Cl. 96-17.

Smith, Theodore M. Tool holder. 3,521,895, 7-28-70, Cl. 279-22.

Smith, Theodore M. Method of determining position of workpiece on a supporting fixture. 3,548,209, 12-15-70, Cl. 250-106.

Smith, Thomas Albert. Rotary engine. 3,550,563, 12-29-70, Cl. 123-8.07

Smith, Thomas G.: *See—*
Foss, George W.; Leib, Robert G.; Campbell, James E.; and Smith, Thomas G.,3,545,023.

Smith, Thomas R.: *See—*
Bergeson, Richard P.; Burkland, Charles W.; and Smith, Thomas R.,3,542,496.

Smith, Thomas R. Looseleaf notebook binder. 3,506,370, 4-14-70, Cl. 402-8.

Smith, Thomas R., to Maytag Company, The. Adjustable door latch. 3,507,531, 4-21-70, Cl. 292-241.

Smith, Thomas R. Binding loading fixture. 3,507,601, 4-21-70, Cl. 402-8.

Smith, Thomas R., to Maytag Company, The. One-way pump. 3,510,229, 5-5-70, Cl. 415-141.

Smith, Thomas R. Binder assembly. 3,516,755, 6-23-70, Cl. 402-9.

Smith, Thomas R., to Maytag Company, The. Waste disposer splash shield. 3,524,596, 8-18-70, Cl. 241-100.5

Smith, Thomas R., to Maytag Company, The. Flexible coupling. 3,537,275, 11-3-70, Cl. 64-11.

Smith, Thomas R.; and Faust, Stewart W., to Maytag Company, The. Fluid control system. 3,542,594, 11-24-70, Cl. 134-25.

Smith, Traver J., 1/2 to Hanscom, Genevieve, and 1/2 to Hanscom, Genevieve I., Magnuson, Robert, and Thomson, Lois J., formerly Duggan, Lois J., as trustees of the estate of Magnuson, Roy M. Shuffle feed mechanism. 3,509,988, 5-5-70, Cl. 198-219.

Smith, Uel L., to Westinghouse Electric Corporation. Static freqency meter. 3,525,938, 8-25-70, Cl. 324-78.

Smith, Valor C., Jr., to Chu Associates, Inc. Wide band antenna for satellite navigation and related problems. 3,534,378, 10-13-70, Cl. 343-828.

Smith Valve Corporation: *See—*
Smith, Anthony D., 3,528,640.

Smith-Vaniz, William Reid, to Perkin-Elmer Corporation, The. Electromechanical variable birefringent light valve. 3,536,374, 10-27-70, Cl. 350-149.

Smith-Vaniz, William Reid, to Perkin-Elmer Corporation, The. Distance measuring apparatus. 3,542,472, 11-24-70, Cl. 356-4.

Smith, Vera R.: *See—*
Smith, Luther B.; and Varger, Frank A., 3,513,851.

Smith, Verne W., Jr.: *See—*
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Smith, Vernon C.: *See—*
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Smith, Vernon O., to Overhead Door Corporation. Truck door lock. 3,514,142, 5-26-70, Cl. 292-113.

Smith, Vernon O.; and Binns, John W., to Overhead Door Corporation. Self-adjusting lock. 3,510,162, 5-5-70, Cl. 292-241.

Smith, Von L. Freeze and thaw indicator. 3,545,400, 12-8-70, Cl. 116-114.5

Smith, Walter E. Martingale for saddle horse. 3,533,219, 10-13-70, Cl. 54-35.

Smith, Walter Michael, to Jones & Laughlin Steel Corporation. Fusion marking of metal articles. 3,506,801, 4-14-70, Cl. 219-76.

Smith, Walter P.; and Rack, Frank J., to Longview Fibre Company. Handle bag construction and closure therefor. 3,493,166, 2-3-70, Cl. 229-54.

Smith, Wanda: *See—*
Sietmann, Vernon H., 3,501,845.

Smith, Ward Alan, to Hercules Incorporated. Invert emulsion spray apparatus and method. 3,499,606, 3-10-70, Cl. 239-304.

Smith, Ward C.: *See—*
Grenzberg, Gerhard B.; and Smith, Ward C.,3,502,095.

Smith, Warner T.: *See—*
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Smith, Warren J., to Raytheon Company. Radiant energy transmitting device. 3,497,695, 2-24-70, Cl. 250-203.

Smith, Warren J.; Riedl, Max J.; Hernlund, Gordon D.; and Healy, Donald B., to Infrared Industries, Inc. Direct reading optical measuring device. 3,540,804, 11-17-70, Cl. 353-41.

Smith, Warren L., to Bell Telephone Laboratories, Incorporated. Oscillator with multiresonator crystal feedback and load coupling. 3,518,573, 6-30-70, Cl. 331-116.

Smith, Warren L., to Bell Telephone Laboratories, Incorporated. Frequency discriminator circuit. 3,525,944, 8-25-70, Cl. 329-140.

Smith, Warren Maxwell; Buchmann, Fred J.; Merrill, Howard Emerson; and Robson, Harry Edwin, to Esso Research and Engineering Company. Method for the preparation of mixed nonnoble metal catalysts. 3,507,812, 4-21-70, Cl. 252-455.

Smith, Warren M.: *See—*
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Gladrow, Elroy M.; and Smith, Warren M.,3,546,137.

Smith, Wayne Edward: *See—*
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Smith, Wayne L., to Mine Safety Appliances Company. Support for main filter and prefilter. 3,525,200, 8-25-70, Cl. 55-484.

Smith, Webster D.: *See—*
Berks, William I.; Acker, Roy M.; and Smith, Webster D.,3,541,569.

Smith, Wesley Earl: *See—*
Harper, William L.; and Smith, Wesley Earl,3,504,044.
Harper, William Lyle; and Smith, Wesley Earl,3,535,081.

Smith, Wilbur R., to Bethlehem Steel Corporation. Tundish dumping and skewing device for continuous casting. 3,524,494, 8-18-70, Cl. 164-281.

Smith, Willard S., to Plastic Products Company, Inc. Clicker toy. 3,538,637, 11-10-70, Cl. 46-189.

Smith, William D., III. Ladle tilting apparatus. 3,550,816, 12-29-70, Cl. 222-166.

Smith, William D. Scrap-charging box. 3,489,299, 1-13-70, Cl. 214-18.

Smith, William Earl, to Owens-Illinois, Inc. Glass, ceramics, and method. 3,528,828, 9-15-70, Cl. 106-39.

Smith, William E., to Aeronca, Inc., mesne. Mixing and sound baffle assembly for gaseous fluid systems. 3,507,356, 4-21-70, Cl. 181-50.

Smith, William E., to Owens-Illinois, Inc. Process for preparing ferric titanate. 3,542,571, 11-24-70, Cl. 106-39.

Smith, William E.; Primosch, Edward P.; and Keenan, John D., Jr., to Amsco Packaging Machinery, Inc. Bag delivery and stacking mechanism for bag- making machine. 3,550,935, 12-29-70, Cl. 271-76.

Smith, William E.: *See—*
Petticrew, Richard W.; Schott, Charles E.; and Smith, William E.,3,490,984.

Smith, William Eric Mortimore, to Evans, J., & Son (Portsmouth) Limited. Filler tool for a brushmaking machine. 3,521,931, 7-28-70, Cl. 300-8.

Smith, William George S. Top mounting for rotary slitters. 3,511,123, 5-12-70, Cl. 83-482.

Smith, William G., to Du Pont de Nemours, E. I., and Company. Permeation separation device for separating fluids and process relating thereto. 3,526,001, 8-25-70, Cl. 210-23.

Smith, William H. Stopper and nozzle construction for metal ladles. 3,511,421, 5-12-70, Cl. 222-559.

Smith, William H., to Metro Hospital Supply Co., Inc. Adjustable non-restrictive nasal cannula. 3,513,844, 5-26-70, Cl. 128-206.

Smith, William H.: *See—*
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Smith, William Leonard, to Stewart Machine and Welding Service, Inc. Form apparatus. 3,539,146, 11-10-70, Cl. 249-144.

Smith, William Novis, Jr., to Foote Mineral Company. Method of making cyclopentyllithium. 3,511,884, 5-12-70, Cl. 260-665.

Smith, William Novis, Jr., to Foote Mineral Company. Process for preparing lithium polyhydric alkoxides. 3,520,940, 7-21-70, Cl. 260-617.

Smith, William Novis, Jr.; and Kuehn, Edward D., to Foote Mineral Company. Method of making solid cyclopentadienyllithium compounds. 3,506,729, 4-14-70, Cl. 260-665.

Smith, William O.; Karwoski, Theodore F.; and Smith, Robert L., said Smith, William O., and Karwoski, Theodore F., assors. to Smith, Robert L. Anti-clogging fluid flow fitting. 3,502,086, 3-24-70, Cl. 131-205.

Smith, William P. Weld testing device. 3,500,679, 3-17-70, Cl. 73-100.

Smith, William R., to Upjohn Company, The. Animal actuated drinking valve with check. 3,527,193, 9-8-70, Cl. 119-72.5

Smith, William V.: *See—*
Armstrong, John A.; and Smith, William V.,3,521,068.

Smith, William W., to FMC Corporation. Envelope and apparatus for opening same. 3,529,756, 9-22-70, Cl. 225-99.

Smith, Willis R., to General Signal Corporation. High frequency tract circuits for railroads interrelated at switches and crossovers. 3,524,054, 8-11-70, Cl. 246-37.

Smith, Willis R.; and Kovalcik, Vincent P., to General Signal Corporation. Train speed profile braking system. 3,524,055, 8-11-70, Cl. 246-184.

Smith, Willis R.; Kovalcik, Vincent P.; and Ferm, Glenn O., to General Signal Corporation. Performance level control of vehicles from a central office. 3,538,325, 11-3-70, Cl. 246-63.

Smith, Wright, Jr.: *See—*
Estis, Lonnie J., 3,513,513.

Smith-Gates Corporation, The: *See—*
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Voglesonger, Harry M., 3,527,921.

Smith-Schreyer & Assoc., Inc.: *See—*
Smith, Donald J., 3,499,972.
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Smithcraft Corporation: *See—*
Kruger, Michael Henry, 3,548,187.

Smithe, F. L., Machine Company, Inc.: *See—*
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Hornung, Helmut O., 3,548,696.
Hornung, Helmut O., 3,548,781.
Stovall, Milton, 3,527,127.
Treff, Ernest H., 3,520,219.

Smithers, John A. Athletic supporter. 3,547,117, 12-15-70, Cl. 128-158.

Smithers-Oasis Company, The: *See—*
Rice, Alvist V., 3,538,031.

Smithies, Ronald H., to Lipton, Thomas J., Inc. Buffered instant tea extract. 3,531,296, 9-29-70, Cl. 99-77.

Smithkey, John C., Jr., to Goodyear Tire & Rubber Company, The. Flexible casing pneumatic tire. 3,540,510, 11-17-70, Cl. 152-352.

Smithkey, John C., to Goodyear Tire & Rubber Company, The. Method for one stage building of radial ply tires by sandwiching tread strips between the radial plies before expansion to tire form. 3,518,140, 6-30-70, Cl. 156-123.

Smiths Industries Limited: *See—*
Anderson, Edward William, 3,541,853.
Constable, Geoffrey Ernest Patrick; Cullen, Graeme E.; and Swarbrick, Richard, 3,543,904.
Dudley, Dennis William; Edge, Arthur James; and Wright, Gerald Noel, 3,508,256.
Evans, John F. O.; and Sandford, Roger H., 3,530,307.
Meredith, James Frederick; Dymock, Anthony John; and Helps, Kenneth Alan, 3,536,978.
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Radford, Arthur Stanley; Blakey, George Thomas Allan; Constable, Geoffrey Ernest Patrick; Cullen, Graeme E.; and Swarbrick, Richard, 3,516,527.

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Schaller, Harold E., 3,491,818.
Schaller, Harold E., 3,548,901.

Smits, Denis L., to Superseal Corporation. Corner gusset for window. 3,510,985, 5-12-70, Cl. 49-425.

Smits, Marius: *See—*
Laubmayer, Gunther; and Smits, Marius,3,532,262.

Smits, Paul: *See—*
Cooke, William Ernest; Bury, David Egerton; and Smits, Paul,3,535,222.

Smittle, Darrell G.; Goodwin, John R.; and Wiggins, William R., to Hardman Aerospace. Tray assembly for an aircraft seat. 3,506,303, 4-14-70, Cl. 297-162.

Smittle, Darrell G.; Goodwin, John R.; and Wiggins, William R., to Hardman Aerospace. Tray assembly for an aircraft seat. 3,506,304, 4-14-70, Cl. 297-162.

Smitzer, Louis A., to Stromberg-Carlson Corporation. Film handling system and takeup and supply mechanism therefor. 3,539,132, 11-10-70, Cl. 242-195.

Smitzer, Louis A., to Stromberg Datagraphix, Inc., mesne. Film transport. 3,539,254, 11-10-70, Cl. 353-95.

Smitzer, Louis A., to Stromberg Datagraphix, Inc. Cathode ray tube system for producing half-tone images. 3,549,939, 12-22-70, Cl. 315-18.

Smoke-Bin Manufacturing Incorporated: *See—*
Turpin, Alexander J., 3,547,567.

Smoker, Benjamin K.: *See—*
Weaver, Richard L.; and Smoker, Benjamin K.,3,498,479.
Weaver, Richard L.; and Smoker, Benjamin K.,3,501,029.

Smokler, Melvin I., to United States of America, Navy, mesne. Acquisition system. 3,511,998, 5-12-70, Cl. 250-199.

Smokler, Melvin I.: *See—*
Le Fevre, Clyde E.; Linsley, Clarence R.; Salomon, Phil M.; and Smokler, Melvin I.,3,524,927.

Smolinsky, Gerald: *See—*
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Smolka, Kurt; Arendt, Werner; and Schulze, Gerhard, said Arendt and Schulze assor to said Smolka. Apparatus for compressing garbage. 3,521,553, 7-21-70, Cl. 100-98.

Smolka, Thomas G.; and Zelinka, Johann, to Wiener Metallwarenfabrik Smolka & Co. Locking arrangement. 3,494,220, 2-10-70, Cl. 74-527.

Smolka, Thomas G.; and Zelinka, Johann, to Wiener Metallwarenfabrik Smolka & Co. Ski-binding. 3,511,516, 5-12-70, Cl. 280-11.35

Smolka, Thomas G.; and Zelinka, Johann, to Wiener Metallwarenfabrik Smolka & Co. Ski-binding. 3,514,120, 5-26-70, Cl. 280-11.35

Smolka, Thomas G.; and Zelinka, Johann, to Wiener Metallwarenfabrik Smolka & Co. Adjustable releasable spring locking device. 3,535,953, 10-27-70, Cl. 74-527.

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Smollinger, Carl W., to Bethlehem Steel Corporation. Vibration damped fitting. 3,549,183, 12-22-70, Cl. 287-82.

Smolyarov, Boris Vladimirovich: *See—*
Gigauri, Vladimir Spiridonovich; Perelmutr, Alexandr Semenovich; Galperin, Jury Shmulevich; and Smolyarov, Boris Vladimirovich,3,548,821.

Smoot, Charles W., to American Photocopy Equipment Company. Dryer for photographic films or the like. 3,548,512, 12-22-70, Cl. 34-70.

Smoot, Robert B.: *See—*
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Smouton, Ronald William; and Summerlin, Frederick Arthur, to Aerpat A.G., mesne. Rivets. 3,491,649, 1-27-70, Cl. 85-78.

Smoyer, Claude B.: *See—*
Baxter, Duane W.; Heidrich, Paul F.; Massing, Jo M.; and Smoyer, Claude B.,3,515,877.

Smucker, Clayton A.: *See—*
Simison, Allen L.; and Smucker, Clayton A.,3,539,423.

Smuda, Otto: *See—*
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Smulders, August Hendrik Maria, to N.V. Industrieele. Apparatus for transferring fluids between a vessel and the shore. 3,538,880, 11-10-70, Cl. 114-230.

Smulkowski, Olgierd, to CSF-Compagnie Generale de Telegraphie Sans Fil. Method for the manufacturing of coils. 3,528,172, 9-15-70, Cl. 29-602.

Smutny, Edar J., to Shell Oil Company. Octadienyl phenols. 3,518,318, 6-30-70, Cl. 260-624.

Smutny, Edgar J., to Shell Oil Company. Ether production. 3,499,042, 3-3-70, Cl. 260-614.

Smutny, Edgar J., to Shell Oil Company. Ether production. 3,518,315, 6-30-70, Cl. 260-612.

Smutny, Edgar J.: *See—*
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Smyers, William H., Jr., to Koehler-Dayton, Inc. Valve. 3,497,179, 2-24-70, Cl. 251-175.

Smyers, William H., Jr.; and DeLaney, Ronald E., to Koehler-Dayton, Inc. Time delay pressure switch. 3,535,479, 10-20-70, Cl. 200-83.

Smyers, William H., Jr.; and Russo, Ronald D., to Koehler-Dayton, Inc. Automatic macerator unit. 3,539,010, 11-10-70, Cl. 210-143.

Smyk, Walter M.; and Turner, Frank E. Golf ball sphericity gauge and putting device. 3,512,262, 5-19-70, Cl. 33-178.

Smylie, Jerry G., to Avoset Company. Pressurized container with content indicator. 3,505,870, 4-14-70, Cl. 73-323.

Smylie, Jerry G., to Avoset Company. Dispensing valve for a pressurized dispensing container. 3,549,060, 12-22-70, Cl. 222-513.

Smyth, Allen N.: *See—*
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Smythe, Bruce Maxwell: *See—*
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Smythe, Frederic H., Jr.; and Kaulins, Edward, to Timex Corporation. Horological hairspring device. 3,517,503, 6-30-70, Cl. 58-109.

Smythe, George Edward, to U.S. Philips Corporation, mesne. Logic circuit arrangements. 3,515,900, 6-2-70, Cl. 307-215.

Smythe, William J., to Technicon Corporation. Colorimeter. 3,518,010, 6-30-70, Cl. 356-181.

Smythe, William J.; Isreeli, Jack; and Kling, Nelson G., to Technicon Corporation. Debubbling means and method for liquid analysis apparatus. 3,551,063, 12-29-70, Cl. 356-246.

Smythe, William J.: *See—*
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Snader, Earle S., to Koppers Company, Inc. Closure for exhaust stack. 3,545,365, 12-8-70, Cl. 98-59.

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Ghilardotti, Giancarlo; and Brighenti, Giuseppe, 3,519,534.
Lugli, Gabriele; Mazzei, Alessandro; and Marconi, Walter, 3,510,466.
Notari, Bruno; Cesari, Marco; Manara, Giovanni; and Perego, Giovanni, 3,492,248.
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Snap-Tite, Inc.: *See—*
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Snaper, Alvin A. Color-producing apparatus. 3,488,105, 1-6-70, Cl. 350-158.

Snapp, Thomas A. Composite wall paneling. 3,511,009, 5-12-70, Cl. 52-311.

Snavely, Benjamin B.; Peterson, Otis G.; and Reithel, Raymond F., to Eastman Kodak Company. Laser media containing coumarin dye solutions. 3,521,187, 7-21-70, Cl. 331-94.2

Snavely, Benjamin B.; and Trautweiler, Franz, to Eastman Kodak Company. Method for lowering dark conductivity of thin semiconducting films. 3,520,781, 7-14-70, Cl. 204-14.

Snavely, Earl S., Jr., to Mobil Oil Corporation. Method for breaking a water-in-oil emulsion. 3,489,680, 1-13-70, Cl. 210-23.

Snazelle, Ernest E. Gregg. Motion picture console. 3,515,471, 6-2-70, Cl. 352-131.

Snead, Charles D.; and Long, Robert L., to Eastman Kodak Company. Heat formable polyester film. 3,547,891, 12-15-70, Cl. 260-75.

Snead, John R.: *See—*
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Snead, William C. Plant wrapping machine. 3,531,910, 10-6-70, Cl. 53-135.

Snedden, Everett B.; and Hubler, Victor L., to Chrysler Corporation. Control mechanism. 3,547,025, 12-15-70, Cl. 98-94.

Snedden, Louis L., to Mason & Hanger- Silas Mason Co., Inc. Tunneling by lasers. 3,544,165, 12-1-70, Cl. 299-14.

Snedeker, John P.: *See—*
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Snedeker, Marion L.; and Korda, John W., to Leece-Neville Company, The. Control circuit for electrical generating system. 3,496,443, 2-17-70, Cl. 320-39.

Snedeker, Robert H.: *See—*
Merriam, Charles N.; Snedeker, Robert H.; and Stine, Herbert G.,3,546,332.

Sneeden, Ralph J., to Curtiss-Wright Corporation. Educer-atomizer combustor. 3,518,037, 6-30-70, Cl. 431-350.

Sneeden, Ralph J., to Curtiss-Wright Corporation. Fuel vaporizer for gas turbine engines. 3,531,937, 10-6-70, Cl. 60-39.71

Sneeden, Ralph J.; Brookes, Neil R.; and Litke, William, to Curtiss-Wright Corporation. Annular fuel vaporizer type combustor. 3,535,875, 10-27-70, Cl. 60-39.71

Snelgrove, James A.: *See—*
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Dahms, Ronald H.; and Snelgrove, James A.,3,526,678.
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Snelgrove, William Richard Noble, to British Copper Refiners Limited. Method of preparing unrefined copper electrodes. 3,504,429, 4-7-70, Cl. 29-527.6

Snell, Arthur H., Jr., to Keystone Valve Corporation. Valve seat for a butterfly valve and method for making the same. 3,537,683, 11-3-70, Cl. 251-306.

Snell, Arthur H., Jr. Body and seat construction for butterfly valves. 3,540,691, 11-17-70, Cl. 251-151.

Snell, Eric Arthur: *See—*
Higgs, Terence; and Snell, Eric Arthur,3,491,542.

Snelling, Charles D., to New Brunswick Scientific Co., Inc. Apparatus and method for cultivating cells, tissues and the like. 3,506,541, 4-14-70, Cl. 195-109.

Snelling, Christopher, to Xerox Corporation. Development apparatus. 3,518,969, 7-7-70, Cl. 118-637.

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Snellings, Albion, to Republic Steel Corporation. Corrugated sheet metal structure. 3,511,004, 5-12-70, Cl. 52-270.

Snellman, Donald L., to Norfin, Inc. Card reader apparatus. 3,527,406, 9-8-70, Cl. 235-61.11

Snellman, Karl Olof, to Ingeniorsfirma H. Sundkvist. Method of making peptides. 3,544,426, 12-1-70, Cl. 195-29.

Snellman, Raymond; and Hill, George D., to Eastman Kodak Company. Photographic elements containing a synthetic surface active material and inert particles. 3,502,473, 3-24-70, Cl. 96-67.

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Snider, Gerald L., to Lear Siegler, Inc. Internally gimbaled attitude indicator. 3,516,055, 6-2-70, Cl. 340-27.

Snider, Girvan N., Jr. Projector. 3,489,494, 1-13-70, Cl. 353-67.

Snider, Harold F., to Therm-O-Disc Incorporated. Furnace control system. 3,494,551, 2-10-70, Cl. 236-10.

Snider, Harold F., to Therm-O-Disc, Incorporated. Thermostat. 3,537,052, 10-27-70, Cl. 337-354.

Snider, John F. Apparatus for treating hair. 3,543,770, 12-1-70, Cl. 132-7.

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Snider, Philip A., to Dotco, Inc. Air operated tool with rear exhaust. 3,502,158, 3-24-70, Cl. 173-12.

Snider, Philip A., to Dotco, Inc. Air motor governor. 3,535,982, 10-27-70, Cl. 91-76.

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Snoddy, Arnon O.; Diehl, Francis L.; Smith, Norman R.; and Callen, Joseph E., to Procter & Gamble Company, The. Detergent composition. 3,539,521, 11-10-70, Cl. 252-137.

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Snodgrass, Robert U. Safety belt for automobiles. 3,521,723, 7-28-70, Cl. 180-82.

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Snoek, Nicolaas. Scrap breaking device. 3,540,665, 11-17-70, Cl. 241-73.

Snoeyenbos, David R.; and Golding, Brage, to Malleable Research and Development Foundation. Method for bonding polyurethane to other materials. 3,501,564, 3-17-70, Cl. 264-255.

Snook, Brooksy Ray. Rotary mowers. 3,516,234, 6-23-70, Cl. 56-25.4

Snook, Brooksy Ray. Rotary mowers. 3,548,571, 12-22-70, Cl. 56-25.4

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Snow, Conley H., to Brooks & Perkins, Incorporated. Calibration test stand for aircraft cargo handling system. 3,495,436, 2-17-70, Cl. 73-1.

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Snow, Gerald A., to United Industrial Syndicate, Inc. Continuous production of articles from a roll of thermoplastic material. 3,504,074, 3-31-70, Cl. 264-153.

Snow, Gerald A.; and Doughty, Harold A., to United Industrial Syndicate, Inc. Egg cartons. 3,506,182, 4-14-70, Cl. 229-44.

Snow, Harland Jesse; Groppe, Ocee Keaton; and Porter, David Latimer, to AMF Incorporated. Cigarette testing machine. 3,533,279, 10-13-70, Cl. 73-45.1

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Snowden, Ralph W., to Thiokol Chemical Corporation. One point star grain configuration for solid propellant rocket motors. 3,529,550, 9-22-70, Cl. 102-99.

Snowdon, Arthur E., to Superior Electric Company, The. Electric stepping motor with plural field windings and energizing circuitry. 3,506,859, 4-14-70, Cl. 310-49.

Snowdon, Arthur E., to Superior Electric Company, The. Variable reluctance electric stepping motor with field energizing circuitry. 3,509,392, 4-28-70, Cl. 310-49.

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Snyder, Benjamin L., to Pentapco, Inc. Method for making a patch structure for fabrics. 3,513,048, 5-19-70, Cl. 156-98.

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Snyder, Calvin M. Pressure sensitive artificial larynx. 3,508,000, 4-21-70, Cl. 179-1.

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Snyder, Frank M.; Stangel, Harvey J.; and Freese, Thomas E., to Allied Chemical Corporation. Ruminant feed supplement. 3,512,986, 5-19-70, Cl. 99-2.

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Societe Anonyme Citroen: *See—*
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Societe Anonyme Coyne et Bellier: *See—*
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Societe Anonyme D.B.A.: *See—*
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Laverdant, Bernard, 3,548,973.
Marouby, Guy, 3,540,779.
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Societe Anonyme de Machines Electrostatiques: *See—*
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Societe Anonyme de Telecommunications: *See—*
Boutmy, Patrick Emile, 3,492,590.
Dorbec, Lucien Prosper; Truffert, Alain Philippe; and Vautier, Philippe Jean, 3,537,030.
Lamelot, Pierre Louis, 3,494,576.
Verges, Paul Francois; and Allanic, Jacques, 3,520,023.

Societe Anonyme de Traverses en Beton Arme Systeme Vagneux: *See—*
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Societe Anonyme de Vehicules Industriels et d'Equipments Mecaniques Saviem:*See—*
Bonnotte, Paul, 3,499,639.
Labat, Pierre, 3,521,731.

Societe Anonyme des Anciens Etablissements Charles Berthiez: *See—*
Neuman, Marcel L., 3,523,484.

Societe Anonyme des Ateliers de Secheron: *See—*
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Societe Anonyme des Ateliers Houget Duesberg Bosson: *See—*
Bouhon, Pierre Hubert Marie Joseph, 3,503,532.

Societe Anonyme des Etablissements Fenet Gergueneuse par Heuchin Pas de Calais: *See—*
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Societe Anonyme des Etablissements Roure-Bertrand Fils & Justin Dupont: *See—*
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Societe Anonyme des Laboratoires Robert et Carriere: *See—*
Carron, Maurice Claude Ernest; Carron, Claude Louis Clement; and Bucher, Bernard Philippe, 3,509,164.

Societe Anonyme des Laboratories Robert et Carriere: *See—*
Carron, Maurice Claude Ernest; Carron, Claude Louis Clement; Jullien, Alexandra Francine, born Jandot; Bucher, Bernard Philippe; and Vandergucht, Guy Charles Francois Georges, 3,541,103.

Societe Anonyme des Usines Chausson: *See—*
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Plegat, Alain Edouard, 3,516,314.
Plegat, Alain Edouard, 3,539,056.
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Societe Anonyme dite ARTUS: *See—*
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Societe Anonyme dite: Compagnie des Eaux et de l'Ozone:*See—*
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Societe Anonyme dite: CRAF'SAC:*See—*
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Societe anonyme dite: Derruppe S.A.: *See—*
Piot, Rene R. P., 3,487,723.

Societe Anonyme dite Elf-Distribution: *See—*
Guerin, Robert Edmond, 3,533,717.

Societe Anonyme dite: ERCA: *See—*
Nasica, Jean Roger, 3,503,826.

Societe Anonyme dite: Geoservices: *See—*
Rebilly Gaston, 3,504,370.

Societe anonyme dite: Laboratores U.P.S.A.: *See—*
Hoffmann, Charles, 3,538,106.

Societe Anonyme dite: Le Panneau Magnetique L.P.M.: *See—*
Charpentier, Roger L., 3,498,405.

Societe Anonyme dite: L'Entreprise Generale:*See—*
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Societe Anonyme dite: L'Oreal:*See—*
Charle, Roger; Kalopissis, Gregoire; and Gascon, Jean, 3,506,389.
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Kalopissis, Gregoire; Bertrand, Jack; and Bugaut, Andree born Ormancey, 3,531,502.
Kalopissis, Gregoire; Viout, Andre; and Vanlerberghe, Guy, 3,534,032.
Kalopissis, Gregoire; and Viout, Andre, 3,535,255.
Kalopissis, Gregoire; Bertrand, Jack; and Bugaut, Andree, 3,546,258.
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Lachampt, Felix; Viout, Andre; and Vanlerberghe, Guy, 3,489,690.
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Societe Anonyme dite: Messier: *See—*
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Societe Anonyme dite: Ratier-Forest: *See—*
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Societe Anonyme dite: Societe des Automobiles Simca: *See—*
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Huchel, Paul E., 3,536,913.

Societe Anonyme dite: Societe Lorraine de Laminage Continu: *See—*
Dehaine, Georges P.; and Lebas, Jacques M., 3,518,862.

Societe Anonyme dite: Societe Nationale des Petroles d'Aquitaine:*See—*
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Societe Anonyme dite: Societe Nationale des Petroles d'Aquitaine Courbevoil:*See—*
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Societe Anonyme dite: Societe Nationale des Petroles d'Aquitaine:*See—*
Espagno, Lucien; Blanc, Claude; and Huynh, Chanh Trung, 3,533,220.
Inchauspe, Nicolas, 3,488,921.

Societe Anonyme dite: Societe Nationale des Petroles d'Aquitaine:*See—*
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Societe Anonyme dite: Societe Nationale des Petroles d'Aquitaine:*See—*
Mondeil, Lucien; and Fontimpe, Marc, 3,535,929.
Pflugfelder, Bernard, 3,517,044.
Terminet, Rene A., 3,495,449.

Societe anonyme dite: Valkourec: *See—*
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Duret, Jean Louis Albert, 3,508,771.
Sulmont, Alain, 3,543,566.

Societe Anonyme Etablissements Kuhlmann: *See—*
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Societe Anonyme Francaise du Ferodo: *See—*
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Francois, Jean Georges, 3,531,164.
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Societe Anonyme Gambin S.A.: *See—*
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Societe Anonyme Glaenzer Spicer: *See—*
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Societe Anonyme Heurtey: *See—*
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Societe Anonyme Outinord: *See—*
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Societe Anonyme Peltex: *See—*
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Societe Anonyme Poclain: *See—*
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Societe Anonyme Produits Chimiques et Celluloses Rey: *See—*
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Societe Anonyme: Societe Alsacienne de Constructions Atomiques de Telecommunications et d'Electronique 'Alcatel':*See—*
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LaSalle, Michel Marie Joseph; and Jourdan, Gerard Charles Maurice, 3,500,054.
Tallon, Jacques Andre Frank; and Gontero, Gilbert Maurice, 3,493,807.

Societe Anonyme Ugine Kuhlmann: *See—*
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Societe Auxiliare de l'Institut Francais du Caoutchouc:*See—*
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Societe Belge pour l'Industrie Nucleaire, S.A.:*See—*
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Societe Bertin & Cie: *See—*
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Societe Cattin & Cie S.A.: *See—*
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Societe Centrale des Emballages Aluminum Cebal: *See—*
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Societe Ceramica Italiana Richard-Ginori S.p.A.: *See—*
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Societe Chimique de la Grande Paroisse (Azote et Produits Chimiques): *See—*
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Societe Civile de Recherchest d'Applications Scientifiques:*See—*
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Societe d'Adaptations Industrielles et Commerciales des Matieres Plastiques Saimap:*See—*
Mancel, Raymond, 3,512,790.

Societe d'Appareillage Auxiliaire pour l'Electricite:*See—*
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Societe d'Appareils de Controle et d'Equipement des Monteurs S.A.C.E.M.:*See—*
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Societe d'Application des Matieres Plastiques:*See—*
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Societe d'Application Plastique, Mecanique et Electronique:*See—*
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Societe d'Assistance Technique pour Produits Nestle S.A.:*See—*
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Hodel, Theodore, 3,549,336.
Peters, Joseph J.; and Mishkin, Abraham R., 3,537,862.
Rey, Louis-Rene; Pictet, Gerard; and Morand, Alfred, 3,532,506.
Traelnes, Knut Rude, 3,520,822.

Societe de Construction et d'Exploitation de Materiels et Moteurs (S.C.E.M.M.):*See—*
Soubis, Jean-Pierre, 3,491,733.

Societe de Constructions Electromecaniques: *See—*
Peslier, Jacques, 3,524,991.

Societe de Constructions Electromecaniques Jeumont- Schneider: *See—*
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Societe de Constructions Mecaniques de Creil: *See—*
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Societe de Fabrication d'Elements Catalytiques:*See—*
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Societe de Fabrication d'Elements Catalytiques (SFEC):*See—*
Clement, Rene, 3,503,844.

Societe de Fabrication d'Instruments de Mesure (S.F.I.M.):*See—*
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Donjon, Jacques. 3,516,006.
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Societe de l' 'Aerotrain':*See—*
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Societe de la Viscose Suisse: *See—*
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Wyss, Daniel; Wyss, Walter; and Lerch, Erwin, 3,511,704.

Societe de l'Aerotrain:*See—*
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Paris, Francois Gilbert; and Giraud, Francois L., 3,516,362.

Societe de Precision Generale (Societe Anonyme): *See—*
Martin, Georges Lucien Henri, 3,537,733.

Societe de Produits Chimiques D'Auby:*See—*
Kragen, Horst, 3,524,767.

Societe de Prospection Electrique Schlumberger S.A.: *See—*
Gouilloud, Michael Marie Albert, 3,496,455.
Gouilloud, Michel Marie Albert; and Levy, Andre, 3,551,797.

Societe de Recherches Biologiques D'Asnieres:*See—*
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Societe de Recherches en Matiere de Micro- Moteurs Electriques SOCREM: *See—*
Stcherbatcheff, Georges, 3,539,845.

Societe de Travaux pour la Construction et l' habitat industriels Tracoba:*See—*
Villaneau, Michel Jean-Charles, 3,546,830.

Societe d'Electro-Chimie, d'Electrometallurgie et des Acieries Electriques d'Ugine:*See—*
Armand, Marcel; Charveriat, Michel; and Salmon, Michel, 3,503,791.

Societe des Accumulateurs Fixes et de Traction (Societe Anonyme): *See—*
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Bougaran, Marcel, 3,505,121.
Chassoux, Rene; and Cailley, Jean Pierre, 3,519,485.
Deschamps, Robert Marcel, 3,490,949.
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Lapuyade, Robert Henri, 3,517,295.
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Societe des Automobiles Simca: *See—*
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Societe des Forges et Ateliers du Creusot: *See—*
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Bovagne, Rene; and Deynat, Gerard, 3,517,915.
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Dollet, Jean, 3,521,477.
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Societe des Grands Travaux de Marseille, Societe Anonyme: *See—*
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Societe des Lunetiers, Temkine & Cie: *See—*
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Societe des Mecaniques Verdol: *See—*
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Societe des Panneaux Landais 'Sopaan':*See—*
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Societe des Procedes Modernes d'Injection Sopomi:*See—*
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Societe des Procedes Modernes d'Injection Sopromi:*See—*
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Societe des Procedes Modernes d'Injection Sopromi: *See—*
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Societe des Soudures Castolin S.A.: *See—*
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Societe des Verreries Industrielles Reunies du Loing: *See—*
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Societe Desgranges et Huot: *See—*
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Societe d'Etudes Chimiques pour l'Industrie et l'Agriculture:*See—*
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Societe d'Etudes Chimiques Pour l'Industrie et l'Agriculture: *See—*
Tourdot, Jacques; and Breiss, Jean, 3,547,573.

Societe d'Etudes de Machines Speciales, Societe Anonyme:*See—*
Cambon, Louis Jean, 3,490,711.
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Societe d'Etudes de Machines Thermiques:*See—*
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Societe d'Etudes de Recherches det d'Applications Scientifiques & Medicales E.R.A.S.M.E.:*See—*
Pedrazzoli, Andrea; and Dall'Asta, Leone, 3,517,016.

Societe d'Etudes et Constructions Electroniques (SERCEL):*See—*
Angelle, Philippe, 3,521,283.

Societe d'Etudes et de Developpement des Aeroglisseurs Marins, S. E. D. A. M.:*See—*
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Societe d'Etudes et de Developpement des Industries Modernes (S.E.D.I.M.):*See—*
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Societe d'Etudes et de Vente de Materiels pour la Fabrication et le Faconnage du Carton Ondule- Martin:*See—*
Carrel, Rene, 3,511,180.

Societe d'Etudes et d'Exploitation de Procedes pour l'Industrie Alimentaire:*See—*
Faucheron, Jean, 3,516,225.

Societe d'Etudes pour Parois Filtrantes Parfil:*See—*
Marie, Guy J. J., 3,540,598.

Societe d'Etudes Recherches et Constructions Electroniques (S.E.R.C.E.L.):*See—*
Picou, Claude H., 3,520,611.

Societe d'Etudes Scientifiques et Industrielles de l'Ile-de-France:*See—*
Thominet, Michel Leon; and Engelhardt, Edward L., 3,495,007.
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Societe d'Etudes Techniques et d'Entreprises Generales 'Sodeteg':*See—*
Laplume, Jacques, 3,532,859.
Villemain, Charles Auguste, 3,529,284.

Societe d'Exploitation des Brevets Granofibre:*See—*
Jacquelin, Guy, 3,506,536.

Societe d'Exploitations Chimiques et Pharmaceutiques Seceph S.A.:*See—*
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Societe d'Instrumentation Schlumberger:*See—*
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Societe dite: Dumoutier-Decre S.A.: *See—*
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Societe Dite: les Ateliers de Constructions Mecaniques C. & A. Holweg, S.A.R.L.: *See—*
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Societe dite: Usinor: *See—*
Berny, Rene; Coppe, Jacques; and Tavernier, Georges, 3,529,758.
Bourgeois, Robert; and Lesure, Adolphe, 3,545,264.

Societe dite: Verreries Mecaniques Champenoises: *See—*
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Societe Dognin S.A.: *See—*
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Societe D'Optique Precision Electronique et Mecanique:*See—*
Baluteau, Jean Michel; and Coussot, Pierre, 3,488,107.
Baluteau, Jean-Michel; and Rodier, Christian, 3,515,460.

Societe d'Optique Precision Electronique et Mecanique 'Sopelem':*See—*
Baluteau, Jean Michel; and Rosier, Raymond, 3,532,415.

Societe d'Optique, Precision, Electronique et Mecanique:*See—*
Baluteau, Jean Michel, 3,533,679.
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Societe en nom Collectif Science Union et Cie, Societe Francaise de Recherche Medicale: *See—*
Beregi, Laszlo; Hugon, Pierre; and Duhault, Jacques, 3,535,335.
Malen, Charles; and Desnoyers, Pierre, 3,547,949.

Societe en Nom Collectif Science Union et Cie, Societe Francaise de Recherche Medicale: *See—*
Beregi, Laszlo; Hugon, Pierre; and Le Louarec, Jean-Claude, 3,504,028.
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Societe Financiere et Industrielle des Ateliers et Chantiers de Bretagne: *See—*
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Societe Fives Lille-Cail: *See—*
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Societe Francaise d'Agrafage Industriel par abjeviation Sofragraf:*See—*
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Societe Francaise de Construction de Bennes Automatiques Benoto: *See—*
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Societe Francaise de l'Electro- Resistance:*See—*
Norris, Clare A., 3,497,858.

Societe Francaise d'Equipements pour la Navigation Aerienne:*See—*
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Societe Francaise d'Equipments pour la Navigation Aerienne:*See—*
Hamel, Bernard Maurice, 3,504,247.

Societe Francaise d'Etiquetage Virey & Garnier:*See—*
Della Vite, Romuald Rene, 3,536,560.

Societe Francaise du Pneu Englebert: *See—*
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Societe Francaise du Pneu Englebert Margny-les- Compiegne: *See—*
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Societe Franco Hispano Americaine Francispam: *See—*
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Societe Franco Hispano-Americaine Francispam: *See—*
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Societe Franco-Hispano-Americaine Francispam: *See—*
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Societe Franco-Hispano-Americaine Francispam: *See—*
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Societe General d'Epuration et d'Assainissement:*See—*
Baud, Georges Andre, 3,494,462.

Societe Generale de Constructions Electriques et Mecaniques (Alsthom): *See—*
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Societe Generale de Constructions Electriques et Mecaniques(Alsthom): *See—*
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Societe Generale de Constructions Electriques et Mecaniques (Alsthom): *See—*
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Societe Generale des Produits Refractaires: *See—*
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Societe Generale du Vide (Sogev): *See—*
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Societe Genevoise d'Instruments de Physique:*See—*
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Pettavel, Jacques; and Koulicovitch, Maurice, 3,489,905.
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Societe Grenobloise d'Etudes et d'Applications Hydrauliques (Sogreah):*See—*
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Le Bouteiller, Gaetan, 3,534,558.
Minart, Paul; Blain, Claude; Platzer, Roger; and Gervraud, Jean-Claude, 3,503,510.
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Societe Herwaythorn S.A.: *See—*
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Societe Hispano-Suiza-Lallemant: *See—*
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Societe Industrielle Bull-General Electric (Societe Anonyme): *See—*
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Sorensen, Jens Ole. Building board for building house models on a module system. 3,527,004, 9-8-70, Cl. 52-98.
Sorensen, Jens Ole. Tray for plant pots. 3,542,210, 11-24-70, Cl. 211-74.
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Sorensen, Kenneth G. Tank-refilling liquid level control for high resistivity liquids. 3,509,825, 5-5-70, Cl. 103-25.
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Sorensen, Robert P., to Anderson Bros. Mfg. Co. Packaging apparatus. 3,490,196, 1-20-70, Cl. 53-51.
Sorensen, Ronald G. Accessory for jointers. 3,512,563, 5-19-70, Cl. 144-117.
Sorensen, Walter H. Bicycle safety device. 3,531,138, 9-29-70, Cl. 280-291.
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Sorg, Earl H.; and Panek, Julian R., to Thiokol Chemical Corporation. Curing of polymercaptan polymers. 3,538,063, 11-3-70, Cl. 260-79.
Sorg, Robert P.; and Steinhaus, Gale A. Turntable trailer apparatus. 3,536,214, 10-27-70, Cl. 214-85.
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Soroka, Bernard, to United States of America, Army. Proximity gage testing device and calibrator. 3,513,686, 5-26-70, Cl. 73-1.
Soroka, Bernard, to United States of America, Army. High voltage, constant current power supply. 3,535,609, 10-20-70, Cl. 320-39.
Soroka, Steven, to TRW Inc. Electrical resistor. 3,509,511, 4-28-70, Cl. 338-308.
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Sorokin, Peter P., to International Business Machines Corporation. Photobleachable Q-spoiler dye for laser operation. 3,493,885, 2-3-70, Cl. 331-94.5
Sorokin, Viktor Vasilievich: *See—*
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Soule, William J., to Sanders Associates, Inc. High intensity projection cathode ray tube. 3,524,197, 8-11-70, Cl. 313-79.
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Soule, Winsor, Jr.; Efstathiou, John; and Andreasen, Leif, to SCM Corporation. Input-output controls. 3,522,416, 8-4-70, Cl. 235-61.6
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Soulez-Lariviere, Jean; and Lecocq, Octave, to Nord-Aviation Societe Nationale de Constructions Aeronautiques. Aerodyne with vertical take-off or landing means. 3,544,042, 12-1-70, Cl. 244-56.
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Southward, Leonard B.; and Fougere, Maurice H. Apparatus for use in enabling immobile persons and invalids to be placed in or remove from a vehicle. 3,515,294, 6-2-70, Cl. 214-75.
Southwell, Stanley William, to Winget Limited. Fluid operated ram assembly for a power assisted steering system. 3,543,643, 12-1-70, Cl. 91-401.
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Sowards, Donald Maurice, to Du Pont de Nemours, E. I., and Company. Ceramic structures. 3,502,596, 3-24-70, Cl. 252-477.
Sowards, Donald Maurice, to Du Pont de Nemours, E. I., and Company. Composite articles of manufacture and apparatus for their use. 3,505,030, 4-7-70, Cl. 23-288.
Sowards, Donald Maurice; and Stiles, Alvin B., to Du Pont de Nemours, E. I., and Company. Supported catalysts composed of substrate coated with colloidal silica and catalyst. 3,518,206, 6-30-70, Cl. 252-446.
Sowatzke, Ronald C., to Rex Chainbelt Inc. Spherical bearing with integral rotation limiting means. 3,510,178, 5-5-70, Cl. 308-72.
Sowell, Clarence W. Apparatus and process for reclaiming paving material. 3,547,411, 12-15-70, Cl. 259-148.
Sowell, Ernest A.; and Scallet, Barrett L., to Anheuser-Busch, Incorporated. Starch product and process. 3,494,792, 2-10-70, Cl. 127-71.
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Spacht, Ronald B., to Goodyear Tire & Rubber Company, The. Hydroxy-triphenylamines as antiozonants for rubber and gasoline. 3,508,888, 4-28-70, Cl. 44-75.
Spacht, Ronald B., to Goodyear Tire & Rubber Company, The. Liquid mixture of N-4-methyl-2-pentyl-N'-phenyl- para-phenylenediamine and N-5-methyl-2-hexyl-N'- phenyl-para-phenylenediame. 3,542,692, 11-24-70, Cl. 252-401.
Spacil, Henry S., to General Electric Company. Electrical device including nickel-containing stabilized zirconia electrode. 3,503,809, 3-31-70, Cl. 136-86.
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Spadini, Paolo; and Pekari, Manfred, to Paolo Spadini. Buzzer having spring blade vibrating at natural frequency. 3,530,463, 9-22-70, Cl. 340-384.
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Spahrbier, Dieter; Wandschneider, Klaus; and Eckardt, Rudolf, to Varta Aktiengesellschaft. Fuel cell device for continuous operation. 3,544,382, 12-1-70, Cl. 136-86.
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Spain, Roy C. Cylinder lock. 3,499,303, 3-10-70, Cl. 70-364.
Spain, Roy C.; Oliver, Roy N.; Flora, Elvis C.; and Powell, Paul A. Cylinder lock. 3,499,302, 3-10-70, Cl. 70-364.
Spain, Roy Clifton. Key cutting machine. 3,499,366, 3-10-70, Cl. 90-95.
Spalding, James R.: *See—*
Sobolewski, Valentine S.; and Spalding, James R.,3,541,334.
Spalding, Joseph B. Work holding carriage for saw table. 3,498,348, 3-3-70, Cl. 144-133.
Spall, Walter E. J., to Avco Corporation. Printed circuit module and process for making the module. 3,532,802, 10-6-70, Cl. 174-68.5
Spallanzani, Giorgio: *See—*
Carli, Roberto; Gervasio, Vincenzo; and Spallanzani, Giorgio,3,506,819.
Spallas, Peter J.: *See—*
Friedlander, Fred I.; and Spallas, Peter J.,3,502,934.
Spalti, Alfred: *See—*
Nyfeler, Alex; Spalti, Alfred; and Vonarburg, Hansjorg,3,508,243.
Spampinato, Dominic P.: *See—*
Gaensslen, Fritz H.; and Spampinato, Dominic P.,3,535,699.
Spampinato, Dominic P.; and Terman, Lewis M., to International Business Machines Corporation. Pulsed power four device memory cell. 3,541,530, 11-17-70, Cl. 340-173.
Span, Samuel; and Thum, Walter. Combined blowpipe projector and mesh screen game board. 3,527,462, 9-8-70, Cl. 273-95.
Span-Deck, Inc.: *See—*
Mitchell, William E., 3,523,343.
Spandorfer, Lester M., to Sperry Rand Corporation. Batch fabrication arrangement for integrated circuits. 3,531,662, 9-29-70, Cl. 307-303.
Spanel, Abram N. Locking sleeves and rings for use in concrete construction. 3,548,554, 12-22-70, Cl. 52-303.
Spangaro, Giovanni: *See—*
Borgnolo, Gian Pietro; and Spangaro, Giovanni,3,502,529.
Spangberg, Rune: *See—*
Pettersson, Lars-Olav; and Spangberg, Rune,3,487,699.
Spange, Arno; and Bellinger, Horst-Gunter, to Bohme Chemie Gesellschaft mit beschrankter Haftung. Method of permanently sterilizing textiles with a solution of at least one N-pentachlorophenylamine compound. 3,501,341, 3-17-70, Cl. 117-138.5
Spangenberg, Sven; and Karlsson, Ingemar, to Aktiebolaget Svenska Flaktfabriken. Method and a device for threading. 3,529,755, 9-22-70, Cl. 225-4.
Spanger, Herbert, to Vereinigte Flugtechnische Werke Gesellschaft mit beschrankter Haftung fruher 'Weser' Flugzeugbau/Focke-Wulf/Heinkel-Flugzeugbau. Control mechanism for helicopters. 3,520,636, 7-14-70, Cl. 416-112.
Spangler, Charles W.: *See—*
Van Patten, John R.; and Spangler, Charles W.,3,549,971.
Spangler, Fred Walter: *See—*
Ditzer, Joseph Roman, Jr.; and Spangler, Fred Walter,3,492,925.
Spangler, Gordon W.; and Denyes, Wells, to Eastman Kodak Company. Processable ultra low denier polyester staple fibers. 3,492,195, 1-27-70, Cl. 161-172.
Spangler, Martin A. Volumetric dispensing container. 3,487,985, 1-6-70, Cl. 222-364.

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Spangler, Myrtle J., to Dan River Mills, Incorporated. Precure process. 3,510,249, 5-5-70, Cl. 8-116.3

Spangler, Paul J., to ETC Incorporated. T-tap connectors. 3,510,827, 5-5-70, Cl. 339-97.

Spangler, Perry K.: *See—*
Gaither, Norman; and Spangler, Perry K.,3,528,370.

Spangler, Stanley E.: *See—*
Hall, Lewis William; Spangler, Stanley E.; and Learned, Samuel M.,3,548,431.

Spani, Hans, to Aktiengesellschaft Gebrueder Loepk. Process and apparatus for actuating the change of the supply bobbin of automatic cross winding machines. 3,539,122, 11-10-70, Cl. 242-36.

Spanjer, David L.; and Wildey, Allen J., to Massey-Ferguson Inc., mesne. Vehicle with improved blade mounting arrangement. 3,521,713, 7-28-70, Cl. 172-776.

Spanjersberg, Arie Adriaan, to De Staat der Nederlanden Ten Deze Vertegenwoordigd Door de Directeur-Generaal der Posterijen, Telegrafie en Telefonie. Reading device have tolerance limits. 3,528,059, 9-8-70, Cl. 340-146.3

Spann, Michael M., to Esso Production Research Company. Remote voltage regulator system. 3,513,379, 5-19-70, Cl. 323-16.

Spano, Francis A.: *See—*
Newallis, Peter E.; Lombardo, Pasquale; and Spano, Francis A.,3,517,089.

Spano, James V.: *See—*
Friedman, Allan; and Spano, James V.,3,529,296.

Spano, John F.: *See—*
von Hofe, George W.; and Spano, John F.,3,522,134.

Spanoudis, Louis: *See—*
Mansur, Fred E.; and Spanoudis, Louis,3,489,588.

Spanski, Paul L., to United States of America, Army. Flexible frame vehicle. 3,550,710, 12-29-70, Cl. 180-14.

Sparacio, Francis J.: *See—*
Anderson, David W.; Litwiller, Robert J.; Powers, Don M.; and Sparacio, Francis J.,3,490,005.

Sparagna, Joseph J.; Badal, Fred B.; and Thompson, Charles E., to Sylvania Electric Products, Inc. Signal processor for determining the angle of which two orthogonal sinusoidal signals are a function. 3,540,053, 11-10-70, Cl. 343-113.

Sparcatron Limited: *See—*
Smith, Gordon V., 3,538,291.
Smith, Gordon Victor, 3,510,620.

Spare, Gordon T.: *See—*
Rice, Lynwood C.; and Spare, Gordon T.,3,502,513.

Spargo, Thomas William: *See—*
Russo, Francis Paul; and Spargo, Thomas William,3,501,005.

Sparke, Maurice Barrington: *See—*
Allison, Kenneth; and Sparke, Maurice Barrington,3,505,360.

Sparkes, Harry P.: *See—*
Bosworth, Melvin B.; Bowman, Douglas F.; Sparkes, Harry P.; and Young, Clarence A.,3,518,617.

Sparkes, Harry P.; Bowman, Douglas F.; and Pusateri, Anthony J., Jr., to Lockheed Aircraft Corporation. Electrical connector assembly. 3,518,615, 6-30-70, Cl. 339-94.

Sparkman, John W.; and Humphrey, William E., to United States of America, National Science Foundation. Method and apparatus for launching balloons. 3,524,609, 8-18-70, Cl. 244-31.

Sparks, Allen K.: *See—*
Arrigo, Joseph T.; Christensen, Nils J.; Chrysler, Richard L.; and Sparks, Allen K.,3,520,935.

Sparks, Allen K., to Universal Oil Products Company. Stabilization of organic substances. 3,520,809, 7-21-70, Cl. 252-52.

Sparks, Allen; and Latos, Edwin J., to Universal Oil Products Company. Synergistic antiozonant mixture of aromatic diamines. 3,530,076, 9-22-70, Cl. 252-401.

Sparks, Anthony Archibald; and Moore, Robert Charles, to Distillers Company Limited, The. Process for stopping peptisation of polychloroprene latex. 3,488,313, 1-6-70, Cl. 260-29.7

Sparks, Charles H. Tissue grafts. 3,514,791, 6-2-70, Cl. 3-1.

Sparks, Harold R., to Knocke and Associates, Inc. Lockwasher. 3,527,279, 9-8-70, Cl. 151-36.

Sparks, James W.: *See—*
Felty, Evan J.; and Sparks, James W.,3,511,649.
Myers, Mark B.; Sparks, James W.; and Felty, Evan J.,3,490,903.

Sparks, John M., III: *See—*
Kirkpatrick, Max B.; Harvey, Andrew G.; and Sparks, John M., III,3,543,724.
Kirkpatrick, Max B.; Harvey, Andrew G.; and Sparks, John M., III,3,543,725.

Sparks, Ned Thomas. Eggshell cracker. 3,494,397, 2-10-70, Cl. 146-2.

Sparks, Richard H.; and Layte, Howard I., to TRW Inc. Battery charge control system. 3,493,837, 2-3-70, Cl. 320-29.

Sparks, Robert A., to S&S Tool Company. Carpet finishing tool. 3,538,523, 11-10-70, Cl. 7-14.1

Sparks, Robert E., Sr. Garbage can lid anchoring attachment. 3,503,535, 3-31-70, Cl. 220-38.5

Sparks, Robert E., to Mohawk Industries International Incorporated, mesne. Stencil cap and process of making. 3,539,492, 11-10-70, Cl. 204-282.

Sparlin, Derry D.; and Bond, William C., to Continental Oil Company. Method for placing gravel packs. 3,498,380, 3-3-70, Cl. 116-278.

Sparling, Arthur J. Means and method of welding small wires. 3,500,533, 3-17-70, Cl. 29-475.

Sparling, Arthur J., to Teledyne, Inc. Electrical coil. 3,525,965, 8-25-70, Cl. 336-198.

Sparling, Wayne Clifford, to Du Pont de Nemours, E. I., and Company. Yarn winding apparatus. 3,532,278, 10-6-70, Cl. 242-18.

Sparrow, Alan W., to Perkins Engines Limited. Torque converter clutch with centrifugal valve. 3,489,254, 1-13-70, Cl. 192-3.29

Sparrow, George Douglas: *See—*
Vause, Arthur Samuel; and Sparrow, George Douglas,3,534,217.

Sparrow, Hubert T., to Honeywell Inc. Magnetostrictive electromechanical galvanometer. 3,488,587, 1-6-70, Cl. 324-97.

Sparrow, John T.: *See—*
Stevenson, Philip J.; and Sparrow, John T.,3,536,556.

Sparrow, Lawrence R.; and Braiman, Jerry, to Mallory, P. R., & Co., Inc. Method of encapsulating an electrolytic capacitor. 3,537,173, 11-3-70, Cl. 29-570.

Sparrow, Lawrence R.; and Gacic, Aleksandar P., to Mallory, P. R., & Co., Inc. Glass to aluminum seal and hermetically sealed aluminum electrolytic capacitor. 3,522,489, 8-4-70, Cl. 317-230.

Spars, Byron G., to Chevron Research Company. Making a lube oil by hydrocracking and solvent extraction. 3,546,098, 12-8-70, Cl. 208-96.

Sparta Industries, Inc.: *See—*
Schellstede, Herman J.; and Sanders, Thomas M., 3,499,210.

Sparton Corporation: *See—*
Crane, Robert H., 3,512,624.
Derr, William M.; and Harper, Bill J., 3,545,274.
Hightower, Russell E.; and Aufill, Charles B., 3,501,960.
Mueller, John L., 3,545,463.
Pierson, William P.; and Aufill, Charles B., 3,537,320.
Puckett, Robert S., 3,533,293.

Spartus Corporation: *See—*
Booty, Donald J.; Jauch, Christian M.; Vander Velde, Charles F.; and Waage, Jack C., 3,546,874.

Spath, Alfons, to Fa. J. Hengstler KG. Transfer mechanism for digital counter. 3,494,549, 2-10-70, Cl. 235-139.

Spati Industries, Inc.: *See—*
Tuttle, Wainwright, 3,494,178.
Tuttle, Wainwright, 3,544,745.

Spatz, Sydney M.; and Cain, Audley L. 1-Aralkyl-3,3-disubstituted-2-vinylene -3H-indole compounds. 3,514,453, 5-26-70, Cl. 260-240.

Spatz, Sydney M.; and Sugarman, Meyer L., to Allied Chemical Corporation. Electrographic recording mixture containing a morpholinyl diphenyl methane and 2 triphenyl methane. 3,518,038, 6-30-70, Cl. 8-2.

Spaude, Robert W., to Allen-Bradley Company. Adjustable electronic component. 3,533,043, 10-6-70, Cl. 338-167.

Spaulding, David A., to Bell Telephone Laboratories, Incorporated. Electric wave filter synthesis. 3,539,937, 11-10-70, Cl. 330-151.

Spaulding, David B., to International Telephone and Telegraph Corporation, mesne. Printing arrangement utilizing a continuously moving transfer band. 3,509,816, 5-5-70, Cl. 101-1.

Spaulding, David B., to International Telephone and Telegraph Corporation. Printing apparatus and image transfer means. 3,540,370, 11-17-70, Cl. 101-1.

Spaulding, David B., to International Telephone and Telegraph Corporation, mesne. Printing transfer and display arrangement. 3,545,373, 12-8-70, Cl. 101-1.

Spaulding, David C., to Goodrich, B. F., Company, The. Nonwoven compositions having improved aging properties. 3,539,434, 11-10-70, Cl. 161-82.

Spaulding Fibre Company, Inc.: *See—*
Goodwin, Elmer C., Jr.; and Waldron, Linwood J., Jr., 3,489,473.

Spaulding, Harold Ernest, to American Can Company. Process for handling and treating articles in groups. 3,524,295, 8-18-70, Cl. 53-14.

Spaulding, Philip F., and Associates, Incorporated: *See—*
Spaulding, Philip F.; and Salinger, Frederic L., 3,498,473.

Spaulding, Philip F.; and Salinger, Frederic L., to Spaulding, Philip F., and Associates, Incorporated. Container-handling crane. 3,498,473, 3-3-70, Cl. 212-41.

Spaulding, Raymond L., to Parker Pen Company, The. Ball pen refill. 3,495,920, 2-17-70, Cl. 401-142.

Spaulding, Richard E.: *See—*
Kosters, Rodney D.; Hammond, Lewis A.; and Spaulding, Richard E.,3,490,132.

Spauschus, Hans O., to General Electric Company. Method of operating compression type refrigeration system. 3,532,631, 10-6-70, Cl. 252-68.

Spaven, Edward P. Piston ring. 3,528,667, 9-15-70, Cl. 277-139.

Spayd, Richard W.: *See—*
Brooks, Dugald A.; Jones, Evan T.; and Spayd, Richard W.,3,510,348.

Speak, Richard: *See—*
Palmer, Walter M.; Giroux, Joseph Charles Aime; and Speak, Richard,3,491,405.

Speaker, Edwin A., to Bausch & Lomb Incorporated. Meter scale having thereon straight line positioning markings. 3,523,516, 8-11-70, Cl. 116-129.

Speaker, J. W., Corporation: *See—*
Koerper, Phillíperhardt; and McCoy, William, 3,488,626.

Speaker, Lawrence W., to General Electric Company. Solid state temperature control means. 3,544,849, 12-1-70, Cl. 317-132.

Speaker, Richard L.; Harenda, Ted J.; and Bergmann, Carl A., to Automatic Sprinkler Corporation of America, mesne. Overhead conveyor apparatus. 3,528,539, 9-15-70, Cl. 198-155.

Speaker, Richard L.; Harenda, Ted J.; and Thomas, Arthur L., to Automatic Sprinkler Corporation of America, mesne. Conveyor system. 3,510,014, 5-5-70, Cl. 214-62.

Speakman Company: *See—*
Gerow, Clarence C.; Lord, Daniel W.; and Russo, Mario J., 3,493,975.
Lagarelli, Carmen J., 3,548,875.
Rudewick, Charles J., 3,537,482.

Speakman, Edwin L., to Standard Brands Incorporated. Starch product. 3,511,830, 5-12-70, Cl. 260-233.5

Speakman, Edwin L. Esters of starch and anthranilic acid and derivatives thereof. 3,513,156, 5-19-70, Cl. 260-233.5

Speakman, Edwin L., to Standard Brands Incorporated. Method of making a dried starch-enzyme blend. 3,544,345, 12-1-70, Cl. 105-157.

Speakman, Edwin L., to Standard Brands Incorporated. Starch process. 3,549,618, 12-22-70, Cl. 260-233.3

Speakman, Frank P.: *See—*
Hunt, Richard J.; Jenkins, Anthony; and Speakman, Frank P.,3,533,218.

Speakman, John D., to Metalphoto Corporation. Container for light sensitive foil. 3,490,578, 1-20-70, Cl. 206-52.

Speaks, Fred A., to Texas Instruments, Incorporated. Cathode-ray tube linearity corrector. 3,518,481, 6-30-70, Cl. 315-24.

Spear, Burton W.: *See—*
Powell, Daryl E.; and Spear, Burton W.,3,519,161.

Spear, Merton R., Jr.: *See—*
Fox, Carol A.; Spear, Merton R., Jr.; and Wharton, Armistead,3,542,466.

Spear, Peter: *See—*
Bailey, John G.; Wyers, George J.; Spear, Peter; and Gregory, Anthony W.,3,538,516.

Spear, Reginald G.: *See—*
Tracy, Richard R.; and Spear, Reginald G.,3,488,677.

Spearman, Earnest H., to Wendell Mills, Inc. Detecting means for weft selecting means. 3,528,460, 9-15-70, Cl. 139-336.4

Spearman, Morris L., to United States of America, National Aeronautics and Space Administration. Translating horizontal tail. 3,493,197, 2-3-70, Cl. 244-43.

Spears, Morton F., to Continental Electronics Manufacturing Company, mesne. Loop antenna comprising plural helical coils on closed magnetic core. 3,495,264, 2-10-70, Cl. 343-788.

Speas, Rex H.: *See—*
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Spec, Inc.: *See—*
Collins, Ralph D.; and Willis, Don C., 3,504,702.

Specht, Herbert H.; and Tropea, Salvatore J. Controlled dispersion missile dispenser. 3,534,653, 10-20-70, Cl. 89-1.815

Specht, Theodore R., to Westinghouse Electric Corporation. Current transductor having instantaneous response. 3,500,195, 3-10-70, Cl. 324-117.

Specht, Theodore R., to Westinghouse Electric Corporation. Grounded Y-Y three-phase transformer. 3,509,507, 4-28-70, Cl. 336-12.

Specht, Theodore R.; Throop, Gilbert D.; and Bruce, Robert V., to Westinghouse Electric Corporation. Three-phase transformer power supply employing capacitors and clamping devices to suppress voltage surges. 3,546,572, 12-8-70, Cl. 323-61.

Special Devices, Incorporated: *See—*
Filippi, Ernest Anthony, 3,492,945.

Special Drill and Reamer Corporation: *See—*
Obloy, Leo A., 3,543,613.

Specialties Development Corporation: *See—*
Archer, Andrew M., 3,502,883.

Specialty Ideas, Inc.: *See—*
Phillips, Ralph L., 3,513,819.

Specialty Research & Sales, Inc.: *See—*
Enochs, Tom W., 3,509,951.

Speck, Morris E., to Phillips Petroleum Company. Production of carbon black. 3,494,740, 2-10-70, Cl. 23-209.4

Speck, Morris E., to Phillips Petroleum Company. Production of carbon black. 3,512,934, 5-19-70, Cl. 23-209.4

Speck, Stanley B., to Du Pont de Nemours, E. I., and Company. Oleophilic anthraquinone red dyes for polypropylene. 3,536,735, 10-27-70, Cl. 260-380.

Speck, Werner; and Kastner, Fritz, to Siemens Aktiengesellschaft. Support-device for the crystal of an X-ray spectrometer. 3,536,912, 10-27-70, Cl. 250-51.5

Specker, Manfred: *See—*
Kuhn, Rolf Benno; Rieckmann, Peter; and Specker, Manfred,3,513,238.

Speco, Inc.: *See—*
Anderson, Chester A., 3,542,104.

Specto Avionics Limited: *See—*
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Spector Industries, Inc.: *See—*
Bruce, Harry J., 3,516,706.

Spector, Marshall L.: *See—*
Caropreso, Frank E.; Chang, Clarence D.; Craddock, John H.; and Spector, Marshall L.,3,510,532.

Spectra Sonics: *See—*
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Spectra-Mat Inc.: *See—*
Reaves, Ronald T., 3,514,661.

Spectral Dynamics Corporation: *See—*
Stellman, Norman F., 3,502,959.

Spectrol Electronics Corporation: *See—*
Cameron, James H.; and Tygard, Charles M., 3,498,147.
DeLong, Robert J.; and Fletcher, Harry W., 3,526,866.
Gerwitz, Paul F., 3,535,670.
Paine, Bud A.; and Trautmann, Paul R., 3,531,860.

Spectrolab: *See—*
Hutchinson, Thomas J.; and Dolan, James J., 3,519,339.
Mann, Alfred E.; and Ralph, Eugene L., 3,489,615.

Spectrospin A.G.: *See—*
Laukien, Gunther, 3,534,252.

Spectrum Diamonds (Proprietary) Limited: *See—*
Leibowitz, Alec, 3,520,088.
Leibowitz, Alec, 3,534,510.
Leibowitz, Alec, 3,543,447.
Leibowitz, Alec, 3,543,450.

Spedale, A. J.: *See—*
Pino, Wilton J., Jr., 3,533,166.

Spedcor Electronics, Inc.: *See—*
La Porta, John J., 3,509,473.

Spedden, Henry Rush; and Malouf, Emil Edward, to Kennecott Copper Corporation. Process and apparatus for the precipitation of substances from solution, using solid precipitatants. 3,540,880, 11-17-70, Cl. 75-109.

Speech, Steven R.: *See—*
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Speed Caulking, Inc.: *See—*
Sutton, Hobert Glye, 3,512,684.

Speed Equipment Incorporated: *See—*
Caskey, William J.; and Burke, William J., 3,510,034.
Schramm, Richard F.; and Burke, William J., 3,510,033.
Schramm, Richard F., 3,542,268.

Speed, Kenneth O. Collet stop. 3,542,384, 11-24-70, Cl. 279-46.

Speed, Richard Francis Bentinck: *See—*
Leakey, David Martin; and Speed, Richard Francis Bentinck,3,489,858.

Speed, Richard G., to Hooker Chemical Corporation. Preparation of flaked phosphorous acid. 3,510,268, 5-5-70, Cl. 23-293.

Speed Selector, Inc.: *See—*
Trofimov, Ivan L., 3,491,608.

Speed-O-Print Business Machines Corporation: *See—*
Hyosaka, Alfred M., 3,508,825.

Speedfam Corporation: *See—*
Boettcher, Stephen A.; and Farley, James N., 3,505,766.
Boettcher, Stephen A., 3,515,115.
Boettcher, Stephen A., 3,518,798.
Keefe, James V.; and Cesna, Joseph V., 3,535,830.

Speedrack Inc.: *See—*
Konstant, Anthony N.; and Schell, Burt E., Jr., 3,502,227.
Konstant, Anthony N., 3,523,613.

Speedring Corporation: *See—*
Jenkin, Keith R., 3,536,315.

Speelman, Irving A., to Propper Manufacturing Co., Inc. Thermometer holder. 3,490,725, 1-20-70, Cl. 248-311.

Speelman, Irving A., to Propper Manufacturing Co., Inc. Multi-focus ophtalmoscope. 3,501,228, 3-17-70, Cl. 351-16.

Speelman, Irving A., to Propper Manufacturing Co., Inc. Bloodletting lancet. 3,517,670, 6-30-70, Cl. 128-314.

Speer, Thomas E., Jr.: *See—*
McGiffen, John W.; and Speer, Thomas E., Jr.,3,511,181.

Speer, William H.: *See—*
Carnevale, Richard J.; Curran, John E.; Dohanich, George J., Jr.; O'Donnell, John F.; Speer, William H.; Trudgen, Gary A.; and Wallace, Leonard J.,3,548,178.

Speers, Daniel Earle, to Slaughter, Byers, Icenhour & Jackson. Electro photography system. 3,512,882, 5-19-70, Cl. 352-244.

Spees, Charles L., to Union Tank Car Company. Angle cock and mounting assembly. 3,504,806, 4-7-70, Cl. 213-1.

Speese, Donald V.; and Brown, Chester B., to Geigy Chemical Corporation. Quenching the fluorescence of optical brightener compounds in paper by means of hydroxymethylamino acetonitrile. 3,542,642, 11-24-70, Cl. 162-158.

Speggiorin, Giuseppe, to Var-Spe s.a.s. di Speggiorin G. & C. (Societa in Accomandita semplice). Variable hydraulic gear. 3,521,449, 7-21-70, Cl. 60-53.

Speglic, Franc; and Vyhnalek, Milan, to Lact-O-Matic Proprietary Limited. Cheese production. 3,543,403, 12-1-70, Cl. 31-89.

Speh, Karl C.: *See—*
Tolles, Walter E.; Speh, Karl C.; and Mencher, Alan G.,3,504,366.

Spehr, Carl J.: *See—*
Taylor, James K.; and Spehr, Carl J.,3,489,013.

Speicher, Edwin W.; and Fry, Charles E., Jr., to Cunningham, M. E., Company. Position indicator for a multiple character marking device. 3,541,954, 11-24-70, Cl. 101-95.

Speier, John L., to Dow Corning Corporation. Dyeing textile coated with an aminoethylamino- propyl trialkoxy silane. 3,504,998, 4-7-70, Cl. 8-31.

Speier, John L., to Dow Corning Corporation. Dyeing textile with a dye solution containing a copolymer of an alkyl siloxane and a polyaminoalkyl siloxane having a least 3 carbons in the alkyl chain. 3,512,915, 5-19-70, Cl. 8-8.

Speier, John L., to Dow Corning Corporation. Organometallic aminosilicon compounds. 3,518,291, 6-30-70, Cl. 260-448.2

Speigel, Kenneth: *See—*
Gallaro, Anthony V.; Kazuk, Walter F.; and Speigel, Kenneth,3,526,527.

Speiser, Jeffrey M.; and Whitehouse, Harper John, to United States of America, Navy. Surface wave transducers with side lobe suppression. 3,551,837, 12-29-70, Cl. 333-30.

Speiser, Robert C.: *See—*
Ernstene, Marshall P.; Forrester, Alvin Theodore; Speiser, Robert C.; Sohl, Gordon; Firestone, Alexander Harvey; and Johnson, Philip O.,3,523,210.

Speitel, Rene; and Hegnauer, Max R. Composition containing epoxy resins, polyvinyl chloride and a diester of acrylic acid and a glycol. 3,513,222, 5-19-70, Cl. 260-836.

Speizman Industries, Inc.: *See—*
Hart, Gene E., 3,503,349.

Spektor, Itskhok Avrumovich: *See—*
Izhelya, Georgy Ignatievich; Bykov, Konstantin Alexeevich; Veneraki, Boris Sokratovich; Vishnikin, Alexandr Ivanovich; Mishakin, Vladimir Andreevich; Rebrov, Sergei Alexeevich; Spektor, Itskhok Avrumovich; and Shipovalenko, Alexandr Grigorievich,3,547,041.
Izhelya, Georgy Ignatievich; Bykov, Konstantin Alexeevich; Veneraki, Boris Sokratovich; Vishnikin, Alexandr Ivanovich; Mishakin, Vladimir Andreevich; Rebrov, Sergei Alexeevich; Spektor, Itskhok Avrumovich; and Shapovalenko, Alexandr Grigorievich,3,548,751.

Speliotis, Dennis E.; Morrison, John R.; and Judge, John S., to International Business Machines Corporation. Magneto-acoustic transducer for high track density recording. 3,526,899, 9-1-70, Cl. 346-74.

Speliotis, Dennis E.: *See—*
Judge, John S.; Morrison, John R.; and Speliotis, Dennis E.,3,526,881.
Judge, John S.; Morrison, John R.; and Speliotis, Dennis E.,3,549,417.
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Spell, Perry W. Agricultural implement. 3,530,944, 9-29-70, Cl. 172-59.

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Staats, Henry N., to General Binding Corporation. Apparatus for taping bindings and product prepared thereby. 3,544,411, 12-1-70, Cl. 156-353.

Staats, Henry N.; Levitan, Maurice D.; and Vincent, Donald P., to General Binding Corporation. Modular laminator. 3,533,886, 10-13-70, Cl. 156-510.

Staats, Henry N.; Vincent, Donald P.; and Morrissey, Neal J., to General Binding Corporation. Sheet trimming apparatus and method. 3,496,817, 2-24-70, Cl. 83-56.

Staats, James E., to General Electric Company. Electronic range. 3,497,656, 2-24-70, Cl. 219-10.55

Staats, James E., to General Electric Company. Crossed-field discharge device and means for balancing the RF anode-cathode voltages thereof. 3,510,724, 5-5-70, Cl. 315-39.51

Staats, James E., to General Electric Company. Electronic oven including microwave coupling structure and folded cavity filters therefor. 3,511,958, 5-12-70, Cl. 219-10.55

Staats, James E., to General Electric Company. Phase-matching device for electronic ovens. 3,526,738, 9-1-70, Cl. 219-10.55

Staats, James E., to General Electric Company. Two-position phase-matching device for electronic ovens. 3,529,114, 9-15-70, Cl. 219-10.55

Staats, James E., to General Electric Company. Crossed-field discharge devices and oscillators and amplifiers incorporating the same. 3,551,735, 12-29-70, Cl. 315-39.3

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Staats, Louis T., Sr.,; Misener, Cecil D.; and Innis, Frank B. Fruit picker head. 3,530,654, 9-29-70, Cl. 56-328.

Staats, Louis T., Sr.: *See—*
De Francis, Dominick J.; Fooks, James M.; and Staats, Louis T., Sr.,3,516,589.
DeFrancis, Dominick J.; Fooks, James M.; and Staats, Louis T., Sr.,3,540,645.

Staats, Willam R.: *See—*
Rosenberg, Robert B.; Weil, Sanford A.; and Staats, Willam R.,3,499,717.

Staats, William R.; Rosenberg, Robert B.; and Kweller, Esher R., to Institute of Gas Technology. Electrolytic pilot igniter. 3,518,036, 6-30-70, Cl. 431-268.

Staats, William R.: *See—*
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Stabinger, Hans: *See—*
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Stacey, David S., to Ball Brothers Company Incorporated. Mold temperature measuring device. 3,494,199, 2-10-70, Cl. 73-361.

Stacey, Gilbert Joseph: *See—*
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Hepworth, Walter; and Stacey, Gilbert Joseph,3,538,107.

Stacey, Hugh J., to Parker-Hannifin Corporation. Relief-makeup check assembly for directional control valves. 3,506,031, 4-14-70, Cl. 137-596.

Stacey, Hugh J., to Parker-Hannifin Corporation. Directional control valve assembly. 3,543,644, 12-1-70, Cl. 91-411.

Stacey, John: *See—*
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Kampe, Wolfgang; Thiel, Max; Stach, Kurt; Schaumann, Wolfgang; and Dietmann, Karl,3,509,129.
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Stachnik, John Joseph, Sr. Simulated fishing games. 3,545,750, 12-8-70, Cl. 273-1.

Stachowiak, Czeslaw; Grebowski, Jerzy; Natkanski, Karol; Weinberger, Oskar; and Zembaty, Wladyslaw. Trickle unit for cooling water. 3,493,219, 2-3-70, Cl. 261-103.

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Stachurski, Zbigniew, to Yardney International Corporation. Cell with displaceable electrode. 3,551,208, 12-29-70, Cl. 136-86.

Stack, Vernon T., Jr., to Weston and Stack, Inc. Dissolved oxygen probe and agitator assembly. 3,496,084, 2-17-70, Cl. 204-195.

Stack, Vernon T., Jr., to Pennwalt Corporation. Method and apparatus for measuring rate of consumption of dissolved gas in a liquid. 3,510,406, 5-5-70, Cl. 204-1.

Stack, Vernon T., Jr., to Pennwalt Corporation. Method of determining consumed oxygen. 3,510,407, 5-5-70, Cl. 204-1.

Stack, Wallace F.: *See—*
Fish, Robert W.; Stack, Wallace F.; and Welch, Craig J.,3,545,194.

Stackegard, Hans A., to Allmanna Svenska Elektriska Aktiebolaget. Direct current power transmission between a number of converter stations. 3,500,057, 3-10-70, Cl. 307-82.

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Stackegard, Hans, to Allmanna Svenska Elektriska Aktiebolaget. Static converter station with provision for feeding a local network. 3,529,172, 9-15-70, Cl. 307-26.

Stackegard, Hans, to Allmanna Svenska Elektriska Aktiebolaget. Converter station with alternative connections between a D.C. network and two A.C. networks. 3,536,930, 10-27-70, Cl. 307-82.

Stackman, Robert W.; and Sargent, Donald E., to Celanese Corporation. Polyethylene terephthalate polymer composition containing at least 0.5 weight precent of a sulfonated pyrrole. 3,507,835, 4-21-70, Cl. 260-75.

Stackpole Carbon Company: *See—*
Bang, Mogens W., 3,497,859.
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Stacy, Galen D., to Phillips Petroleum Company. Chromatographic data input system for digital computer. 3,488,480, 1-6-70, Cl. 235-151.35

Stacy, Galen D.; and Carleton, Robert C., to Phillips Petroleum Company. Digital data input system. 3,500,024, 3-10-70, Cl. 235-92.

Stacy, Gertrude. Finger grip means for girdles. 3,506,015, 4-14-70, Cl. 128-576.

Stade, K. E.: *See—*
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Stadele, Erhard. Nil gauging device for machine tools. 3,507,047, 4-21-70, Cl. 33-172.

Stadelman, Frank. Depanning apparatus for bakery products. 3,502,236, 3-24-70, Cl. 214-309.

Stadler, David R. Board game apparatus comprising means for conducting periodic auction sales during play. 3,506,268, 4-14-70, Cl. 273-134.

Stadler, Friedrich; and Fitz, Herbert, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Electrodeposition of polytetrafluoroethylene on metals. 3,506,555, 4-14-70, Cl. 204-181.

Stadler, Hans; Gawlick, Heinz; and Bendler, Hellmut, to Dynamit Nobel Aktiengesellschaft. Primer. 3,499,386, 3-10-70, Cl. 102-86.5

Stadler, Hans; Gawlick, Heinz; and Umbach, Hans, to Dynamit Nobel Aktiengesellschaft. Method for producing an electrically ignitable primer element. 3,535,978, 10-27-70, Cl. 86-10.

Stadnik, Bohumil; and Tronner, Zdenek, to Ceskoslovenska akademie ved. Apparatus for stabilizing the modulation of coherent radiation. 3,541,300, 11-17-70, Cl. 219-210.

Staebler, Paul J., to Caterpillar Tractor Company. High speed rotor for dynamoelectric machine having laminations welded to stepped shaft and method of making the same. 3,502,924, 3-24-70, Cl. 310-211.

Staehlin, John H., to United States of America, Navy, mesne. Polarization device for antenna. 3,541,563, 11-17-70, Cl. 343-766.

Staeuble, Max; and Weber, Kurt, to Ciba Limited. Vat dyestuffs containing sulfonamide groups. 3,515,732, 6-2-70, Cl. 260-354.

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Stafford, Horace W. Auxiliary paint brush container and clamp. 3,536,187, 10-27-70, Cl. 206-15.1

Stafford, John A., to Schlumberger Technology Corporation. Methods and apparatus for recording well logging signals. 3,488,660, 1-6-70, Cl. 346-1.

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Stafford, Lawrence R. Line grip device. 3,492,702, 2-3-70, Cl. 24-126.

Stafford, Osborne C.; and Voelcker, Rudolph W., to Western Electric Company, Incorporated. Microwave phase shift device. 3,522,558, 8-4-70, Cl. 333-31.

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Stage, Jack W. Fuel injection system. 3,507,262, 4-21-70, Cl. 123-139.

Stageberg, Sterling O. Rotary fluid pump mechanism and the like. 3,544,243, 12-1-70, Cl. 418-58.

Stageberg, Wilfred E., to Minnesota Mining and Manufacturing Company. Apparatus for attaching pressure-sensitive adhesive sheet material successively to labels. 3,539,419, 11-10-70, Cl. 156-540.

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Staggs, Ralph E. Breech locking mechanism for break-action over and under firearm. 3,530,609, 9-29-70, Cl. 42-43.

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Stahl, Egon. Chromatographic method and apparatus. 3,523,890, 8-11-70, Cl. 210-31.

Stahl, Filip Torvald; and Englesson, Sixten, to Steinberg-Flygt, AB. Face seal fastening. 3,508,772, 4-28-70, Cl. 287-52.05

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Stahl, Norman O. Cryogenic instrument with detachable probe. 3,532,094, 10-6-70, Cl. 128-303.1

Stahl, Robert L. Plastic Packaging Company Plastic bag. 3,497,130, 2-24-70, Cl. 229-54.

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Stahlecker, Fritz, to Spindelfabrik Suessen, Schurr, Stahlecker & Grill G.m.b.H. Spindle bearing for a spinning or twisting machine. 3,510,181, 5-5-70, Cl. 308-152.

Stahler, Kermit B.; Mitman, Edward T.; and Greene, Warren G., to Fuller Company. Pneumatic conveying apparatus. 3,514,158, 5-26-70, Cl. 302-52.

Stahler, Paul A. Production of valuable animal feed components through processing of the rumen content of slaughtered cattle and products. 3,545,977, 12-8-70, Cl. 99-7.

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Stahly, Eldon E.; and Lard, Edwin W., to Grace, W. R., & Co. Polyester resins containing a hydroxypyridine. 3,548,029, 12-15-70, Cl. 260-864.
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Stankavich, Anthony J., to Carrier Corporation. Method of generating electricity using gas to recycle liquid reactant. 3,531,326, 9-29-70, Cl. 136-86.

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Stanley, Gerald R., to International Radio & Electronics Corporation. High power high fidelity solid state amplifier. 3,493,879, 2-3-70, Cl. 330-17.

Stanley, Harry L., to Capewell Manufacturing Company, The. Method of making saw blades. 3,540,317, 11-17-70, Cl. 76-112.

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Stanley, Peter Paul; and Byrd, Carl, to Reichel & Drews, Inc. Wrapping machine. 3,499,263, 3-10-70, Cl. 53-210.

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Stanley, Robert K., to Techniservice Corporation. Strand treatment. 3,499,953, 3-10-70, Cl. 264-168.

Stanley, Robert K., to Techniservice Corporation. Strand treatment. 3,500,519, 3-17-70, Cl. 28-71.3

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Stapp, Paul R., to Phillips Petroleum Company. Dehydrohalogenation of 4-halotetrahydropyrans. 3,527,771, 9-8-70, Cl. 260-345.1
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Starr, Arthur Tisso, to Rank Precision Industries Limited. Electric discharge tube for displaying alphanumeric character symbols. 3,519,867, 7-7-70, Cl. 313-70.
Starr, Arthur T.; Greaves, Peter James; and Stillwell, Peter F.T.C., to Xerox Corporation. System for delta encoding at selected intervals. 3,524,926, 8-18-70, Cl. 178-6.
Starr, David A., Jr., to Burroughs Corporation. Trapezoidal-waveform drive method and apparatus for electrographic recording. 3,528,073, 9-8-70, Cl. 346-74.
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Steele, Clarence R.; Morroni, Richard J.; and Morroni, Thomas J., to American Factors Associates, Limited. Automatic control system for load-carrying rotors. 3,497,386, 2-24-70, Cl. 127-19.
Steele, Clarence R.; and Price, Frank B., to CF&I Engineers, Inc., mesne. Control of solution input to continuous centrifugal. 3,497,385, 2-24-70, Cl. 127-19.
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Steele, James E.; and Sheary, George W., to Bethlehem Steel Corporation. Deep sea nodule mining. 3,504,943, 4-7-70, Cl. 299-8.
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Steele, Richard K.; Green, Allen T.; and Lockman, Charles S., to Aerojet-General Corporation. Method and apparatus for non-destructive testing of pressure vessels. 3,545,262, 12-8-70, Cl. 73-88.5

Steele, Thomas L.; and Snow, Ralph K., Jr., to CMI Corporation. Line tracer control device. 3,514,630, 5-26-70, Cl. 307-118.
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Stier, Henry W., to Howmet Corporation. Cutting tools. 3,546,758, 12-15-70, Cl. 29-96.
Stier, Paul G.; and Scaboo, Gust N., to General Motors Corporation. Self-adjusting thermal connector. 3,550,681, 12-29-70, Cl. 165-80.
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Stierlin, Hans. Absorption refrigeration system and method for its operation. 3,516,264, 6-23-70, Cl. 62-101.
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Stiers, Edouard Louis. Method of making sodium carbonate. 3,493,329, 2-3-70, Cl. 23-63.
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Stiles, Alvin B., to Du Pont de Nemours, E. I., and Company. Process for applying porous coatings on catalyst supports. 3,498,927, 3-3-70, Cl. 252-451.
Stiles, Alvin B., to Du Pont de Nemours, E. I., and Company. Process for applying catalytic coatings. 3,513,109, 5-19-70, Cl. 252-462.
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Stingl, Hans Alfred, to Toms River Chemical Corporation. Nitrodiphenylamine disperse dyes. 3,549,311, 12-22-70, Cl. 8-179.

Stingl, Johann, to Fischer, Georg Ltd. Weft cutter and control for weaving machine. 3,530,902, 9-29-70, Cl. 139-122.

Stingl, Johann, to Fischer, Georg, Ltd. Method of weaving. 3,530,903, 9-29-70, Cl. 139-122.

Stingl, Johann, to Fischer, Georg, Ltd. Tread clamping device for weaving machines. 3,533,451, 10-13-70, Cl. 139-122.

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Stockel, Karl, to Bolkow Gesellschaft mit beschrankter Haftung. Rocket engine with cooling walls of combustion chamber with oxygen-supplying liquid. 3,524,319, 8-18-70, Cl. 60-259.

Stockel, Richard Frederick; and Depaolo, George Robert, to American Cyanamid Company. Polyfluoro alkyl esters of polymeric phosphonitrilic acid. 3,524,907, 8-18-70, Cl. 260-926.

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Stoever, Hans O.; and Michatek, Stephen F., to Eastman Kodak Company. Endless cleaning web. 3,510,903, 5-12-70, Cl. 15-256.5

Stoferle, Theodor; Holzl, Horst; and Roeskopf, Max, to Huller, Karl, GmbH. Machine tool. 3,546,774, 12-15-70, Cl. 29-568.

Stoffel, Olly O. Earth rippers. 3,519,083, 7-7-70, Cl. 172-40.

Stoffel, Olly O. Vibrating ripper. 3,538,986, 11-10-70, Cl. 172-40.

Stoffel, Paul J., to Monsanto Company. Oxamyl chloride substituted carbamates. 3,539,618, 11-10-70, Cl. 260-471.

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Stoffel, Robert W., to Robbins, Jim, Seat Belt Company. Emergency locking retractor with disabling means. 3,510,085, 5-5-70, Cl. 242-107.4

Stoffel, Robert W., to Robbins, Jim, Seat Belt Co. Pushbutton buckle with slide action. 3,523,340, 8-11-70, Cl. 24-230.

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Stogryn, Eugene L.; and Gianni, Michael H., to Esso Research and Engineering Company. Difluoroamino derivatives. 3,549,707, 12-22-70, Cl. 260-584.

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Stokes, John Joseph, Jr.,; and Cargnel, Robert Alfonso, to Aluminum Company of America. Soldering flux. 3,497,400, 2-24-70, Cl. 148-23.

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Stokes, Rufus. Air pollution control device. 3,520,113, 7-14-70, Cl. 55-223.

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Stoll, Milton. Method and apparatus for producing glass to metal seals using two sealing gas pressures. 3,490,886, 1-20-70, Cl. 65-32.

Stoll, Milton. Flat pack spacer of low thermal diffusivity. 3,502,786, 3-24-70, Cl. 174-52.

Stoll, Milton. Methods, apparatus and systems for heat sealing electrical devices within flat glass packages. 3,551,127, 12-29-70, Cl. 65-32.

Stoll, Milton. Heater for sealing flat-packs and the like. 3,551,645, 12-29-70, Cl. 219-462.

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Stone, Ralph. Method for combusting refuse and other organic material. 3,524,417, 8-18-70, Cl. 110-8.

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Stork, Karl, to Lummus Company, The. Fractionation process. 3,536,610, 10-27-70, Cl. 208-340.

Stork, Willi, to Windmoller & Holscher. Bag-making machine. 3,524,389, 8-18-70, Cl. 93-8.

Stork-Werkspoor-Sugar N.V.: *See—*
Hoks, Dirk, 3,537,591.

Storm, Elwood H.: *See—*
Bauer, Richard A.; and Storm, Elwood H.,3,544,732.

Storm, Lester F. M.: *See—*
Yamada, Yoshikazu; and Storm, Lester F. M.,3,544,320.

Storm, Lester F.M.: *See—*
Yamada, Yoshikazu; and Storm, Lester F.M.,3,544,321.
Yamada, Yoshikazu; and Storm, Lester F.M.,3,544,322.

Storm, Nelson. Support trailer. 3,544,128, 12-1-70, Cl. 280-81.

Storm Products Company: *See—*
Swaisgood, Ralph H., 3,498,258.

Stormon, Lester T.: *See—*
Marshall, James E.; Barcus, Jack L.; Stormon, Lester T.; and Ryan, John W.,3,501,154.

Storms, Howard A.: *See—*
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Storms, Phillip W.: *See—*
Olson, Danford H.; and Storms, Phillip W.,3,515,748.

Storms, Phillip W.; and Farrar, Grover L., to Marathon Oil Company. Polyesters of 1,2,3,4-tetrahydronaphthalenes and processes for their manufacture. 3,505,282, 4-7-70, Cl. 260-47.

Storms, Robert S.: *See—*
Schenck, Robert C., Jr.; and Storms, Robert S.,3,550,988.

Storni, Angelo: *See—*
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Meisles, Alex; and Storni, Angelo,3,498,987.

Storrie, Arthur: *See—*
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Wolf, Andrew; DeKeizer, John L.; and Storrie, Arthur,3,494,302.

Storsand, Bjarne, to Maschinenfabrik Oerlikon. Electrical driving arrangement including a flywheel. 3,518,469, 6-30-70, Cl. 310-74.

Storsand, Bjarne, to Maschinenfabrik Oerlikon. Switching arrangement for flywheel energized electric generating unit. 3,541,409, 11-17-70, Cl. 318-150.

Storti, Michael, to Rohm & Haas Company. Apparatus for producing fabric-film laminates. 3,518,152, 6-30-70, Cl. 156-540.

Story, George A.: *See—*
Hoaglund, James B.; Kautz, Franz A.; and Story, George A.,3,540,526.

Story, Julian R.; Herrick, Aaron B.; and Jungermann, Eric, to Armour and Company. Sustained action detergent product containing encapsulated sodium tripolyphosphate. 3,516,937, 6-23-70, Cl. 252-110.

Story, Malcolm C. Combination garment. 3,490,459, 1-20-70, Cl. 128-454.

Story, Paul R., to Research Corporation. Process for the preparation of macrocyclic compounds by photolytic decomposition of cyclic ketone peroxides. 3,528,898, 9-15-70, Cl. 204-158.

Story, William E., to East Tennessee Packing Company. Method and apparatus for transferring articles. 3,550,749, 12-29-70, Cl. 198-31.

Stosberg, Arturo E.: *See—*
Machein, Kurt R.; Phan, John T.; and Stosberg, Arturo E.,3,501,584.

Stossel, Ernest. Cigarette or the like having combustion stop. 3,528,432, 9-15-70, Cl. 131-4.

Stossl, Arnold; and Eichberger, Josef, said Eichberger assor to said Stossl. Folding machine. 3,516,582, 6-23-70, Cl. 223-37.

Stossl, Arnold; and Eichberger, Josef, said Eichberger assor. to said Stossl. Target practice device. 3,545,759, 12-8-70, Cl. 273-101.2

Stotler, Harold H., 1/2 to Hydrocarbon Research, Inc., and 1/2 to United States of America, Interior. System employing coal as fuel in a steam reformer. 3,551,123, 12-29-70, Cl. 48-94.

Stotler, Harold H.; and Calderon, Michael, to Hydrocarbon Research, Inc. Residuum recovery from coal conversion process. 3,519,554, 7-7-70, Cl. 208-10.

Stotler, Harold H.: *See—*
Johanson, Edwin S.; Schuman, Seymour C.; Stotler, Harold H.; and Wolk, Ronald H.,3,519,553.

Stotler, Richard A.: *See—*
Donofrio, Frank C.; Hansell, Howard B.; Sabatino, Francis V.; and Stotler, Richard A.,3,493,026.

Stott, Ted; Gunyou, Lyman J.; and Stelzer, Robert A., to Avco Corporation. Corn shellers. 3,536,077, 10-27-70, Cl. 130-6.

Stott, Thomas Charles Felix, to General Motors Corporation. Gear selector mechanisms. 3,538,782, 11-10-70, Cl. 74-473.

Stott, Thomas Charles Felix; and Maina, Mario Joseph, to General Motors Corporation. Gearshift mechaniams for motor vehicles. 3,496,797, 2-24-70, Cl. 74-476.

Stotts, John D., Jr.; and Holden, Harold H., to Continental Oil Company. Well tester. 3,528,282, 9-15-70, Cl. 73-61.1

Stotz, Robert H.: *See—*
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Stotzer, Roger H.: *See—*
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Lee, William H.; and Stotzer, Roger H.,3,527,995.

Stouffer, James R., to Cornell Research Foundation, Inc. Sonic inspection apparatus. 3,496,764, 2-24-70, Cl. 73-67.8

Stough, Donald M., to Westinghouse Electric Corporation. Gas flow measurement system. 3,525,259, 8-25-70, Cl. 73-196.

Stout, Caleb M.: *See—*
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Stout, Charles D.: *See—*
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Stout, Don W., to Paraffin Tool and Equipment Company, Inc. Valve for removing paraffin from oil wells. 3,542,130, 11-24-70, Cl. 166-224.

Stout, Edward I.: *See—*
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Stout, George W., to Walhamlin, Inc. Apparatus for injecting steam into oil wells. 3,543,850, 12-1-70, Cl. 166-62.

Stout, George W., to Walhamlin Inc. Flow augmenting device for oil wells. 3,551,074, 12-29-70, Cl. 417-172.

Stout, James T.: *See—*
Funkhouser, James B.; and Stout, James T.,3,493,261.

Stout, James T., to Mead Corporation, The. Article carrier. 3,517,876, 6-30-70, Cl. 229-40.

Stout, Richard W.; and Brunk, Milton J., to Stoutco, Inc. Axled vehicle support frame assembly. 3,540,756, 11-17-70, Cl. 280-106.5

Stout Sign Company: *See—*
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Stoutco, Inc.: *See—*
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Stovall, Milton, to Smithe, F. L., Machine Company, Inc. Rotary panel cutter. 3,527,127, 9-8-70, Cl. 83-23.

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Stover, Harold F.: *See—*
Nolan, William H.; and Stover, Harold F.,3,527,325.

Stover, Joe V., to Hughes Aircraft Company. Complementary transistor pair switching circuit. 3,526,787, 9-1-70, Cl. 307-254.

Stover, Joe V.; and Sloan, George, to Hughes Aircraft Company. Series-connected complementary transistor pair switching circuit. 3,488,525, 1-6-70, Cl. 307-255.

Stover, Joe V.; and Sloan, George, to Hughes Aircraft Company. Serially-connected complementary transistor pair switching circuit. 3,526,788, 9-1-70, Cl. 307-255.

Stover, Joe V.; and Sloan, George, to Hughes Aircraft Company. Capacitive voltage distribution network for series connected transistor switches. 3,538,350, 11-3-70, Cl. 307-255.

Stover, Johannes Hinderikus: *See—*
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Stover, Jordan H., III, to Lebow Associates, Inc. Force-measuring washer and readout arrangement. 3,541,844, 11-24-70, Cl. 73-88.5

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Stover, William L.; and Sutyak, John J., to Mesta Machine Company. Method and means for obtaining high modulus rolling mills. 3,546,913, 12-15-70, Cl. 72-241.

Stow, George C., Jr.: *See—*
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Hersh, Solomon P.; Boe, Norman W.; and Stow, George C., Jr.,3,525,206.

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Stow, Robert H., to Minnesota Mining and Manufacturing Company. Tape. 3,514,326, 5-26-70, Cl. 117-227.

Stow, Robert H.: *See—*
Olyphant, Murray, Jr.; and Stow, Robert H.,3,497,383.

Stowe, Richard W., to Melpar, Inc. Ultraviolet detection system using U.V. detector tube with D-C biased nonsymmetrical electrode configuration. 3,493,753, 2-3-70, Cl. 250-83.3

Stowe, Robert A.; Hanger, Zen C.; and Roberts, Richard W., to Dow Chemical Company, The. Strontium nickel phosphate dehydrogenation catalyst. 3,541,172, 11-17-70, Cl. 260-669.

Stowell, Philip A., to Burroughs Corporation. Electrostatic dipole printing. 3,519,461, 7-7-70, Cl. 117-17.5

Stowell, Philip A., to Borg-Warner Corporation. Ink particle reservoir. 3,550,792, 12-29-70, Cl. 214-17.

Stoy, Erich: *See—*
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Stoy, Vladimir: *See—*
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Stoyanov, Benjamin: *See—*
Turk, Leonard G.; Ulm, Ernest S.; and Stoyanov, Benjamin,3,530,533.

Straat, Harold W., to Bausch & Lomb Incorporated. High power magnifier. 3,551,021, 12-29-70, Cl. 350-69.

Straatmeyer, Glen E.: *See—*
Kockx, Dale J.; and Straatmeyer, Glen E.,3,531,958.

Strabag Bau-AG: *See—*
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Strachan & Henshaw Limited: *See—*
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Strachan, David B. F.: *See—*
Keith, Donald G.; and Strachan, David B. F.,3,537,929.

Strachan, Joseph D.; and Williams, Thomas C., to Union Carbide Corporation. Siloxane-polyarylene polyether copolymers. 3,539,655, 11-10-70, Cl. 260-824.

Strachan, Peter H., to United States of America, Navy, mesne. Automatic battery use timer. 3,543,044, 11-24-70, Cl. 307-66.

Strachan, Ronald, to Ideal Industries, Inc. Electrical prod structure. 3,513,388, 5-19-70, Cl. 324-72.5

Strache, Hanns: *See—*
Hochmuth, Udo; Ring, Wolfhard; and Strache, Hanns,3,499,049.

Strachila, Robert L.: *See—*
Herrick, Franklin W.; Van Blaricom, Lloyd E.; Strachila, Robert L.; and Durkee, George E.,3,530,081.

Strack, Donald R., to Protective Treatments, Inc. Self-supporting, nonload-bearing resilient tape sealant. 3,500,603, 3-17-70, Cl. 52-397.

Strack, Hans A.: *See—*
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Strack, Richard R., to Bendix Corporation, The. Method of fabricating a pressure transducer. 3,503,116, 3-31-70, Cl. 29-423.

Strader, Don S., to Envirotech Corporation, mesne. Engine control system. 3,545,421, 12-8-70, Cl. 123-198.

Strahan, Daryl J.: *See—*
Gawin, Adolph J.; Porazinski, Robert F.; and Strahan, Daryl J.,3,511,564.

Strahan, Robert M.: *See—*
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Strahan, Thomas W.: *See—*
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Strahle, Manfred: *See—*
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Straif, Kurt: *See—*
Franz, Herbert; Haug, Gerhard; Meyer, Friedhelm; Werner, Frithjof; Straif, Kurt; Steimer, Richard; Sayer, Johannes; and Reichelt, Hans,3,527,972.

Straight, Dwaine D., to Gresen Manufacturing Company. Quick response pilot operated valve. 3,502,109, 3-24-70, Cl. 137-625.64

Straight, Paul E.: *See—*
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Straimer, Georg: *See—*
Friedrich, Kurt; and Straimer, Georg,3,526,775.

Strain, Robert J., to Bell Telephone Laboratories, Incorporated. Solid-state display device employing continuous phosphor layers. 3,531,585, 9-29-70, Cl. 178-5.4

Strain, Robert J., to International Standard Electric Corporation. Cyclotron resonance phototube having axial magnetic field and transverse electric field. 3,549,891, 12-22-70, Cl. 250-211.

Strain, Robert Joseph: *See—*
Sandbank, Carl Peter; and Strain, Robert Joseph,3,530,299.
Scott, Richard F.; and Strain, Robert J.,3,530,053.

Straits, Ernest J.: *See—*
Neville, Donald G.; and Straits, Ernest J.,3,516,112.

Straitwell, Harold L., Jr. Alternating absorption and dispersion valve. 3,497,035, 2-24-70, Cl. 184-7.

Straley, James M.; Fisher, John G.; and Wallace, David J., to Eastman Kodak Company. Quaternized pyrazolylozo dyes. 3,515,715, 6-2-70, Cl. 260-163.

Straley, James M.; and Harris, Raymond C., to Eastman Kodak Company. 5,12-Dialkyl fluorindine compounds. 3,534,040, 10-13-70, Cl. 260-267.

Straley, James M.; and Wallace, David J., to Eastman Kodak Company. Bis(cyanomethylidene aromatic aminoalkylcarbamate)compounds. 3,504,010, 3-31-70, Cl. 260-465.

Straley, James M.; and Wallace, David J., to Eastman Kodak Company. Polypropylene dyed with metal complexes of azo compounds. 3,515,506, 6-2-70, Cl. 8-42.

Straley, James M.: *See—*
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Weaver, Max A.; Straley, James M.; and Wallace, David J.,3,519,623.

Stram, George H., to Dentsply International Inc., mesne. Dental syringe. 3,511,235, 5-12-70, Cl. 128-173.1

Stranberg-Carlson Corporation: *See*—
Johnston, Bevan H., 3,526,341.

Strance, John Sherman, to Bliss, E. W., Company. Launch or recovery system for aircraft. 3,510,091, 5-5-70, Cl. 244-63.

Strance, John Sherman, to Gulf & Western Industrial Products Company, mesne. Rolling mill gage control actuator system. 3,517,531, 6-30-70, Cl. 72-16.

Strance, John S.; and Cruger, Robert W. Aircraft launching system. 3,516,626, 6-23-70, Cl. 244-63.

Strand, Elmer E., to Synthol Corporation. Method and apparatus for heat treating with thermal reactor including impermeable membrane to emit radiant energy. 3,528,648, 9-15-70, Cl. 263-50.

Strand, Helen R. Backpack trundling assembly. 3,550,997, 12-29-70, Cl. 280-30.

Strand, Robert C., to Sinclair Research, Inc. Polyvinyl alcohol plasticized with an alkanol amine salt of a polyalkylene glycol-esterified styrene/ maleic anhydride copolymer. 3,510,542, 5-5-70, Cl. 260-874.

Strand, Robert C.; and Pratt, Richard J., to Sinclair Research, Inc. Compositions comprising styrene-maleic anhydride copolymer ester and polyvinyl alcohol or cellulosic ether. 3,492,254, 1-27-70, Cl. 260-17.

Strand, Sanford M., to Cutler-Hammer, Inc. Cyclically operating material cut-off apparatus with adjustable speed and position control. 3,521,529, 7-21-70, Cl. 83-76.

Strandberg Engineering Laboratories, Inc.: *See*—
Strandberg, Robert C., 3,510,632.

Strandberg, Robert C., to Strandberg Engineering Laboratories, Inc. Digital stretch and speed indicating apparatus. 3,510,632, 5-5-70, Cl. 235-92.

Stranddorf, Soren Peter: *See*—
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Strandhagen, Odd, to Grepa Og Mjelva Fabrikker A/S. Perambulator. 3,534,975, 10-20-70, Cl. 280-47.38

Strandine, Eldon J.; and Peckenpaugh, Charles W., to Swift & Company. Processing poultry and apparatus therefor. 3,511,164, 5-12-70, Cl. 99-257.

Strang, Aart: *See*—
Gersmann, Hans R.; Oosterhof, Hendricus A.; and Strang, Aart,3,542,728.

Strang, Alastair, to Courtaulds Limited. Mixing apparatus. 3,506,244, 4-14-70, Cl. 259-4.

Strang, Charles D., to Outboard Marine Corporation. Steering arrangement for slant stern drive. 3,489,120, 1-13-70, Cl. 115-41.

Strang, David A.: *See*—
Hair, Eddy R.; and Strang, David A.,3,493,389.
Patel, Jayantilal M.; and Strang, David A.,3,549,380.

Strang, Elmer J.; and Scott, Ray A., to Coats Company, Inc, The. Apparatus for protecting vehicle rims. 3,493,028, 2-3-70, Cl. 157-1.

Strang, Elmer J.; White, David V.; and Sorenson, Billy L., to Coats Company, Inc., The. Tire changing stand with rotatable rim gripping table. 3,493,030, 2-3-70, Cl. 157-1.24

Strang, Robert E.: *See*—
De Leu, Robert P.; Strang, Robert E.; and Garberick, Thayne K.,3,518,962.

Strang, Thomas R., Jr.: *See*—
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Strang, Virgil G. Welding equipment. 3,514,567, 5-26-70, Cl. 219-75.

Strange, Harold O.: *See*—
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Strange, Jack Freshwater, to Du Pont de Nemours, E. I., and Company. Photosolubilization process using phenols as Dmax. maintainers. 3,495,983, 2-17-70, Cl. 96-64.

Strange, John P.; and Fertig, Glenn H., to Mine Safety Appliances Company. Infrared radiation detection device for a non- dispersive selective infrared gas analysis system. 3,529,152, 9-15-70, Cl. 250-43.5

Strange, John, to Tinnerman Products, Inc. Fastening device. 3,498,650, 3-3-70, Cl. 287-53.

Strange, Maxwell G., to United States of America, National Aeronautics and Space Administration. Position sensing device employing misaligned magnetic field generating and detecting apparatus. 3,509,469, 4-28-70, Cl. 328-1.

Strange, Robert J. System for salvaging submerged objects. 3,500,785, 3-17-70, Cl. 114-50.

Straniti, Salvatore; and Massey-Shaw, Frederick, to Avco Corporation. Rotary regenerator with rectangular matrix sections. 3,516,482, 6-23-70, Cl. 165-7.

Strantz, Lawrence D., to Westinghouse Air Brake Company. Fluid device. 3,508,565, 4-28-70, Cl. 137-81.5

Strantz, Lawrence D., to Westinghouse Air Brake Company. Earthmoving scraper with fluidic control means. 3,530,600, 9-29-70, Cl. 37-129.

Stranzinger, Hermann. Structural element and assembly. 3,522,618, 8-4-70, Cl. 14-27.

Strasburger, Louis J.: *See*—
Kratz, Philip, deceased; and Strasburger, Louis J.,3,499,769.

Straschil, Heinrich K.: *See*—
Langley, Robert C.; Lindenthal, John W.; Myers, Herbert; and Straschil, Heinrich K.,3,499,265.

Strasel, Raymond K., to Jacobsen Manufacturing Company. Gang lawn mowing machine. 3,511,033, 5-12-70, Cl. 56-7.

Strasel, Raymond K., to Jacobsen Manufacturing Company. Articulate connection for a lawn mower on a tractor. 3,511,034, 5-12-70, Cl. 56-7.

Strasel, Raymond K., to Jacobsen Manufacturing Company. Lift means for tractor-mounted lawn mowers. 3,511,035, 5-12-70, Cl. 56-7.

Strassberg, Daniel D.: *See*—
Miller, Arthur; Patrick, Gerard R.; and Strassberg, Daniel D.,3,518,558.

Strassburger, Friedhelm, to Andreas Hofer Hochdruck-Apparatebau G.m.b.H. Method of obtaining higher pressures with a diaphragm compressor and diaphragm compressor for carrying out said method. 3,508,845, 4-28-70, Cl. 417-32.

Strassel, Albert Pierre, to Ugine Kuhlmann, (Societe Anonyme). Polyurethane-polyurea elastomers. 3,499,858, 3-10-70, Cl. 260-30.2

Strasser, David G., to Jackson Vibrators, Inc. Railroad track curve recording apparatus. 3,547,038, 12-15-70, Cl. 104-8.

Strasser, Erwin: *See*—
Kopke, Gunter; Denz, Alfons; Grau, Eckehardt; and Strasser, Erwin,3,545,831.

Strasser, Rudolf; Nitzsche, Siegfried; and Gerstner, Ferdinand, to Wacker-Chemie G.m.b.H. Method of purifying organosiloxane polymers employing gas-liquid extraction. 3,493,595, 2-3-70, Cl. 260-448.2

Strater, Henry H., to Carborundum Company, The, mesne. Oxidation resistant carbon. 3,510,347, 5-5-70, Cl. 117-169.

Stratford Engineering Corporation: *See*—
Graham, Ward A., 3,523,761.
Massa, Harry E., 3,534,118.
Webb, Orlando, Jr.; Graham, Ward A.; and Massa, Harry E., 3,544,653.

Stratford, Henry Ralph, to York Gears Limited. Aircraft landing gear. 3,544,043, 12-1-70, Cl. 244-104.

Strathmann, Heinrich; and Baker, Richard W., to Amicon Corporation. Continuous ultrafiltration of macromolecular solutions. 3,541,005, 11-17-70, Cl. 210-19.

Stratienko, Andrew, to King of Prussia Research and Development Corporation. Static pressure system for mechanical seals. 3,489,419, 1-13-70, Cl. 277-15.

Stratienko, Andrew, to King of Prussia Research and Development Corporation. Submerged bearing assembly. 3,489,469, 1-13-70, Cl. 308-36.3

Stratienko, Andrew. Linear self-interlocking wedge device. 3,501,183, 3-17-70, Cl. 287-52.06

Stratienko, Andrew, to King of Prussia Research and Development Corporation. Bearing lubrication for mixer shaft. 3,536,302, 10-27-70, Cl. 259-108.

Stratman, Hardin G., to Gates Radio Company. Low frequency modulation network. 3,500,248, 3-10-70, Cl. 332-23.

Stratman, Hardin G., to Gates Radio Company. Frequency modulated transmitter with crosstalk isolation. 3,544,919, 12-1-70, Cl. 332-16.

Stratman, Jerome F., to Tappan Company, The. Garbage disposal apparatus. 3,510,070, 5-5-70, Cl. 241-46.

Stratman, Paul E., to Parker-Hannifin Corporation. Quick disconnect coupling. 3,530,887, 9-29-70, Cl. 137-614.05

Strattan, Robert D.: *See*—
Manning, William P.; Seufert, John L.; and Strattan, Robert D.,3,509,568.

Stratton, Boyd L.; and Poulett, Anthony, to Ampex Corporation. Method and apparatus for recording and reproducing television or other broad band signals with an altered time base effect. 3,539,716, 11-10-70, Cl. 178-6.6

Stratton, Donald A., to Test Quip Inc. Lamp and bell control circuit. 3,510,671, 5-5-70, Cl. 307-39.

Stratton, Donald W., to Anderson Company, The. Windshield wiper arm construction. 3,548,442, 12-22-70, Cl. 15-250.34

Stratton, George B.: *See*—
Geering, Emil J.; and Stratton, George B.,3,494,966.
Hoch, Paul E.; and Stratton, George B.,3,547,865.

Stratton, Jerry L.: *See*—
Harnden, John D., Jr.; Stratton, Jerry L.; and Watrous, Donald L.,3,524,997.

Stratton, Jerry L., to General Electric Company. Voltage indicator and test device. 3,524,178, 8-11-70, Cl. 340-248.

Stratton, Lawrence J.: *See*—
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Stratton, Rynor L.: *See*—
Butterworth, John C.; Allen, Horace S.; and Stratton, Rynor L.,3,526,709.

Stratton, William D.: *See*—
Ward, John E.; and Stratton, William D.,3,505,561.

Straub, Albert, to Bosch, Robert, Elektronik und Photokono G.m.b.H. Apparatus for transporting cinematographic film. 3,501,974, 3-24-70, Cl. 74-436.

Straub, Dieter, to Telefunken Patentverwertungsgesellschaft m.b.H. Signal control circuit. 3,502,900, 3-24-70, Cl. 307-203.

Straub, Donald H.: *See*—
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Straub, Robert Michael, to Du Pont de Nemours, E. I., and Company. Peroxide-cured chlorinated polyethylene. 3,531,455, 9-29-70, Cl. 260-94.9

Straube, Helmut J., to General Dynamics Corporation. Bender type transducers. 3,497,731, 2-24-70, Cl. 310-8.2

Straube, Max: *See*—
Littmann, Gert; Littmann, Hans; Straube, Max; and Worner, Hans Peter,3,533,685.

Straube, Peter, to VEB Druckmaschinenwerk Planeta. Device for clamping sheet material. 3,536,321, 10-27-70, Cl. 271-53.

Strauch, Heinrich, to Associated Engineering Limited. Pressure transducers. 3,500,271, 3-10-70, Cl. 336-30.

Strauch, Ludwig, to Hannig, Kurt. Process and device for the isolation of fractions of a substance mixture electrophoretically separated in a carrier gel. 3,533,933, 10-13-70, Cl. 204-180.

Strauff, Gunter, to Langen & Co. Hydraulic booster assemblage. 3,523,420, 8-11-70, Cl. 60-54.5

Straulino, Dante. Three duct junction for distributing flowing air. 3,523,554, 8-11-70, Cl. 137-625.4

Straumann, Dr. Ing., Reinhard, Institut AG.: *See*—
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Steinemann, Samuel; and Peter, Martin, 3,547,713.

Straus, Andrew J. D., to Mobil Oil Corporation. Focusing system for dual transducer logging tool. 3,517,768, 6-30-70, Cl. 181-0.5

Straus, Andrew J. D.; and Zemanek, Joseph, Jr., to Mobil Oil Corporation. Caliper system for focusing dual transducers in logging tool. 3,517,767, 6-30-70, Cl. 181-0.5

Straus, Gus, to Reynolds Metals Company. Metal panel and building construction using same. 3,511,011, 5-12-70, Cl. 52-478.

Strausfeld, Hermann: *See*—
Damm, Kurt; Strausfeld, Hermann; Krahn, Werner; and Kronchen, Theodor,3,528,127.

Strauss, Edgar H., to Ruti Machinery Works Ltd., formerly Caspar Honegger. Guide arrangement for pick laying-in members. 3,500,871, 3-17-70, Cl. 139-12.

Strauss, Edgar H., to Ruti Machinery Works Ltd. Arrangement for producing thread windings on a loom. 3,513,882, 5-26-70, Cl. 139-12.

Strauss, Edgar H., to Ruti Machinery Works Ltd. Device for producing thread windings. 3,519,025, 7-7-70, Cl. 139-12.

Strauss, Edgar H., to Ruti Machinery Works Ltd. Weaving shuttle for inserting weft threads. 3,519,026, 7-7-70, Cl. 139-12.

Strauss, Edgar H., to Ruti Machinery Works Ltd., formerly Caspar Honegger. Weaving shuttle. 3,532,133, 10-6-70, Cl. 139-12.

Strauss, Edgar H., to Ruti Machinery Works Ltd., formerly Caspar Honegger. Arrangement for the monitoring of the insertion of weft threads. 3,550,641, 12-29-70, Cl. 139-12.

Strauss, Eugene O.; Walesa, Anthony C.; and Johnson, Carl E. Mold coating. 3,549,392, 12-22-70, Cl. 106-38.23

Strauss, Georg: *See*—
Klee, Helmut; Schorning, Dieter; Herget, Georg; Strauss, Georg; and Niermann, Hermann,3,539,695.

Strauss, Howard J., to Clevite Corporation. Seal for wafer cells. 3,525,647, 8-25-70, Cl. 136-111.

Strauss, Ira; and Thomas, Bryant. Thread chain severing device for sewing machines. 3,511,202, 5-12-70, Cl. 112-252.

Strauss, Leopold. Combination door release and door check. 3,538,537, 11-10-70, Cl. 16-66.

Strauss, Levi, & Co.: *See*—
Bacharach, Melvin L., 3,512,688.

Strauss, Ludwig, to Kayser-Roth Corporation. Brassieres. 3,515,140, 6-2-70, Cl. 128-425.

Strauss, Raymond C. Vehicle driving controls. 3,487,715, 1-6-70, Cl. 74-513.

Strauss, Richard; and Bottomley, James, to National Polychemicals, Inc. Polymers stabilized with organic sulfides and phosphites. 3,526,679, 9-1-70, Cl. 260-887.

Strauss, Richard; and Bottomley, James, to National Polychemicals, Inc. Phosphorus-containing polymers. 3,527,725, 9-8-70, Cl. 260-29.3

Strauss, Robert F., to Astrosystems International, Inc. Opaque light source. 3,516,772, 6-23-70, Cl. 431-158.

Strauss, Robert G.: *See*—
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Strauss, William, to Pennwalt Corporation. Sprue bushing purge port for injection molding machine. 3,550,207, 12-29-70, Cl. 18-30.

Strausser, John R.; and Kurland, Ralph S., to Gulf Oil Corporation. Separation of hydrocarbons from plant process waste water. 3,507,782, 4-21-70, Cl. 208-188.

Strausser, Yale E., to Varian Associates. Scintillation-type ion detector employing a secondary emitter target surrounding the ion path. 3,538,328, 11-3-70, Cl. 250-71.5

Straut, Harold J.: *See*—
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Straw, Dorsey Wayne, to Reynolds Metals Company. Spray coating control apparatus. 3,521,598, 7-21-70, Cl. 118-2.

Straw, Eldred G., to Walker Manufacturing Company. Muffler partition assembly. 3,498,407, 3-3-70, Cl. 181-61.

Straw, Eldred G., to Tenneco Inc., mesne. Simplified muffler shell construction. 3,523,590, 8-11-70, Cl. 181-61.

Strawbridge, George B., to Sperry Rand Corporation. Synthetic monolithic ferrite array. 3,506,976, 4-14-70, Cl. 340-174.

Strawn, Charles F., to Johnson Service Company. Magnetic control device. 3,521,253, 7-21-70, Cl. 340-174.

Strawn, Max; and Altamirano, Lloyd E., to Chemical and Industrial Corporation, The. Process and apparatus for producing concentrated nitric acid. 3,489,653, 1-13-70, Cl. 203-13.

Strayer, Guy H. Double jib gantry crane. 3,547,277, 12-15-70, Cl. 212-10.

Strazdins, Edward; Kulick, Russell Joseph; and Savina, Anthony Ralph, to American Cyanamid Company. Aqueous cationic emulsions of paper-sizing isocyanates and manufacture of paper therewith. 3,499,824, 3-10-70, Cl. 162-164.

Strazdins, Edward: *See*—
Webb, Richard Lansing; Strazdins, Edward; and Cabasso, Victor Jack,3,531,565.

Stream, Ralph M., to Owens-Corning Fiberglas Corporation. Chopper for glass strands. 3,508,461, 4-28-70, Cl. 83-344.

Stream, Ralph M., to Owens-Corning Fiberglas Corporation. Method for producing curly glass fibers. 3,538,722, 11-10-70, Cl. 65-2.

Streander, Philip B., to FMC Corporation. Weir construction. 3,489,287, 1-13-70, Cl. 210-525.

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Leikarts, Aldis Juris, 3,543,699.
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Strebel, Albert; and Habegger, Oskar, to Maschinenfabrik Burckhardt AG. Cylinder structure for single or multistage piston compressors. 3,510,233, 5-5-70, Cl. 417-454.

Streck, Clemens, to GAF Corporation. Method of coloring naturally occurring porous stone. 3,494,715, 2-10-70, Cl. 8-8.

Streck, Clemens, to GAF Corporation. Process for dyeing paper employing metalized dyestuffs containing diethylene triamine. 3,537,807, 11-3-70, Cl. 8-7.

Streck, Roland: *See*—
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Streckfuss, Heinrich; and Rall, Dieter, to Messrs. Heckler & Koch GmbH. Rifle grenade capable of being fired by conventional ammunition. 3,491,693, 1-27-70, Cl. 102-65.2

Street, Arthur Norman; and Noble, Bruce Thomas, to British Hovercraft Corporation. Air cushion supported platforms. 3,493,071, 2-3-70, Cl. 180-124.

Street, Arthur, to Polar Hydraulics Limited. Supporting stands for instruments. 3,529,797, 9-22-70, Cl. 248-160.

Street, Brian F., to Shell Oil Company. Process for devolatizing polymers. 3,536,787, 10-27-70, Cl. 260-880.

Street, John N.: *See*—
Craig, Dwin R.; and Street, John N.,3,510,305.

Street, John N., to Logetronics, Inc. Process control strip exposing device. 3,533,694, 10-13-70, Cl. 355-100.

Street, Leslie John, to Parnall & Sons Limited. Document reading head utilizing a cylindrical lens and a plurality of bafflesto minimize cross-talk between channels. 3,523,191, 8-4-70, Cl. 250-219.

Street, Louis F.: *See*—
Gregory, Robert B.; Street, Louis F.; and Verner, David A.,3,524,222.

Street, Roddy K.: *See*—
Samples, Randall H.; and Street, Roddy K.,3,504,894.

Streeter, Edward C., Jr. Floating ribbon environmental screen. 3,524,281, 8-18-70, Cl. 49-74.

Strehle, Horst: *See*—
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Strehler, Hugo: *See*—
Diebold, Adolf; Walter, Justus; and Strehler, Hugo,3,544,319.
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Floss, Josef Georg; Brodt, Rudolf; Henkler, Herbert; Strehler, Hugo; and Wilhelm, Hans,3,516,828.

Streib, Hugo: *See*—
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Schnell, Hermann; Bottenbruch, Ludwig; Weirauch, Kurt; Hechelhammer, Wilhelm; Streib, Hugo; and Fritz, Gerhard,3,544,514.

Streich, Martin Friedrich Wilhelm Reinhold, to Messer Griesheim GmbH. Process for the fractionation of natural gas. 3,494,751, 2-10-70, Cl. 48-196.

Streich, Martin: *See*—
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Streif, Daryl G., to Sperry Rand Corporation. Time variable stop bit scheme for data processing system. 3,528,060, 9-8-70, Cl. 340-172.5

Streit, Elmer W. Remote signal system. 3,523,162, 8-4-70, Cl. 179-5.

Strelau, Robert J.: *See*—
Alt, Gerhard H.; and Strelau, Robert J.,3,551,495.

Strell, Leo, to Kleinert, I. B., Rubber Company. Reinforced girdle. 3,499,451, 3-10-70, Cl. 128-539.

Strelli, Albert. Emergency traction device for vehicle wheels. 3,545,516, 12-8-70, Cl. 152-213.

Strelow, Gert, to Bosch, Robert, GmbH. Breakerless ignition system with magneto supply and transistor controls. 3,504,373, 3-31-70, Cl. 315-218.

Streltsova, Antonina Alexandrovna. Method of preparing cycloalkanoneoxime hydrochlorides. 3,498,895, 3-3-70, Cl. 204-162.

Strelzoff, Samuel; Warshaw, Abe; Villiers-Fisher, John F.; and Atkin, Sydney, to Chemical Construction Corporation. Solvent extraction process for the production of ammonium nitrate fertilizer product and phosphoric acid mixed with nitric acid. 3,518,073, 6-30-70, Cl. 71-60.

Strenfel, Leo M.: *See*—
Oxford, Jerry J.; Kaffer, Donald M.; and Strenfel, Leo M.,3,492,938.

Strengelsrud, Sverre: *See*—
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Stresemann, Siegfried: *See*—
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Stressed Pipe Research Ltd.: *See*—
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Stretanski, Joseph Anthony: *See*—
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Stretton, Joseph B.: *See*—
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Streu, Benno, to Hellige, Fritz, & Co., G.m.b.H. Electrode with contact-forming suction cup means. 3,490,442, 1-20-70, Cl. 128-2.06

Streu, Benno, to Hellige, Fritz, & Co., G.m.b.H. Apparatus for automatically measuring blood pressure. 3,533,401, 10-13-70, Cl. 128-2.05

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Stribling, John Brian, to Caval Developments Limited. Furnaces. 3,516,370, 6-23-70, Cl. 110-7.

Strich, Philippe P., to Suchem, Inc. Apparatus for the continuous extraction of water soluble materials from solids by diffusion. 3,533,837, 10-13-70, Cl. 127-6.

Stricker, Charles D., to United States Steel Corporation. Apparatus for electrolytically cleaning strands. 3,507,767, 4-21-70, Cl. 204-208.

Stricker, Charles D.: *See*—
Stalson, Stanley L.; and Stricker, Charles D.,3,496,086.

Stricker, Virgil A. Hydro-therapy bath device. 3,541,616, 11-24-70, Cl. 4-180.

Strickholm, Harry, to Litton Systems, Inc. Recording of facsimile signals. 3,536,403, 10-27-70, Cl. 355-47.

Strickland, Edward T.; and Amos, Homer C., to Brunswick Corporation. Construction material or member. 3,501,048, 3-17-70, Cl. 220-83.

Strickland, Glenn G. Radiation sensitive passive binocular motion detector. 3,535,528, 10-20-70, Cl. 250-210.

Strickland, Glenn L.; and Culbertson, Jack L. Bed and platen printing machine with envelope feed means. 3,489,084, 1-13-70, Cl. 101-287.

Strickland, James C. Air coupling system for helicopters. 3,510,087, 5-5-70, Cl. 244-17.19

Strickland, James K. Column shore bracket. 3,504,879, 4-7-70, Cl. 248-296.

Strickland, Marion C.: *See*—
Barrett, Harold F.; Schneider, Donald J.; Strickland, Marion C.; and Childers, James H.,3,528,817.

Strickland, William L., to United States of America, Army. Radio frequency hazard detector. 3,517,555, 6-30-70, Cl. 73-342.

Strickler, Allen, to Beckman Instruments, Inc. Injection and collection pressure control in continuous particle electrophoresis apparatus. 3,496,090, 2-17-70, Cl. 204-299.

Strickler, Allen, to Beckman Instruments, Inc. Continuous flow electrophoresis apparatus. 3,498,905, 3-3-70, Cl. 204-299.

Strickler-De Moss Mfg. Co.: *See*—
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Strickrodt, Jorg; Blume, Gerhard; and Hoffmann, Gerhard, to Salzitter Chemie GmbH. Process for preparing polyethyleneurea. 3,494,895, 2-10-70, Cl. 260-77.5

Strid, Bengt Henrik: *See*—
Nystrom, Olof Birger; and Strid, Bengt Henrik,3,540,192.

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Sennewald, Kurt; Bender, Ludwig; Gehrmann, Klaus; Kallrath, Heinrich; Peantek, Gunter; Schallus, Erich; Stephan, Hans-Werner; and Strie, Lothar,3,515,519.
Sennewald, Kurt; Vogt, Wilhelm; Strie, Lothar; and Rehberg, Heinrich,3,499,924.

Striednig, Louis John, to RCA Corporation. Cascade connected regenerative amplifiers. 3,525,051, 8-18-70, Cl. 330-56.

Strief, Milton J.: *See*—
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Strien, Werner; and Cless, Karl, to Recaro A.G. Hinge fittings for seats with adjustable back rests. 3,507,000, 4-21-70, Cl. 16-146.

Striepe, Friedrich, to Zahnradfabrik Friedrichshafen, Aktiengesellschaft. Grinding wheel profiling device. 3,509,864, 5-5-70, Cl. 125-11.

Strietzel, Rainer: *See*—
Rocholl, Martin-Gottfried; Kriege, Wolfgang; Strietzel, Rainer; and Hertel, August,3,495,259.

Striggow, Lewis G. Load monitor module. 3,515,903, 6-2-70, Cl. 307-252.

Stright, Paul L., to Allied Chemical Corporation. Process for dyeing polyolefins with metalizable azole dyestuffs. 3,492,078, 1-27-70, Cl. 8-42.

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Striker, Charles A., to Hughes Aircraft Company. Offset-wound spiral antenna. 3,530,486, 9-22-70, Cl. 343-895.

Striley, David J.; and Williams, James E., to National Cash Register Company, The. Sealing porous, polymeric material, membranes which form capsule walls. 3,520,821, 7-21-70, Cl. 252-316.

Strimel, Robert S. Detachable weight for baseball bats. 3,508,748, 4-28-70, Cl. 273-26.

Strimling, Walter E. Switch position and continuity indicator for a pair of heating circuits. 3,548,398, 12-15-70, Cl. 340-248.

Strindehag, Ove Magnus, to Aktiebolaget Atomenergi. Liquid-rinsed precipitation electrode for a device for precipitating and collecting charged particles from a gas. 3,551,674, 12-29-70, Cl. 250-83.

Stringer, George R.; and Andrews, Harold K., to Union Carbide Corporation. Method for stabilizing refined ethanol against degradation caused by polyvalent metal ions. 3,501,535, 3-17-70, Cl. 260-632.5

Stringfellow, William D., to Sargent Industries Inc. Hydraulically operated rack and pinion actuator. 3,498,187, 3-3-70, Cl. 92-24.

Stringfield, Horace C., to National Laboratories & Manufacturing Corporation. Method and device for producing a substantially stationary image of successive similar areas on a running web. 3,506,356, 4-14-70, Cl. 356-24.

Striplin, Marcus M., Jr.; and Achorn, Frank P., to Tennessee Valley Authority. Process for production of phosphoric acid. 3,507,614, 4-21-70, Cl. 23-165.

Strnat, Karl J.; Hoffer, Gary I.; Olson, John C.; and Ostertag, Werner, to United States of America, Air Force. Permanent magnets. 3,540,945, 11-17-70, Cl. 148-31.57

Strobel, Albert F.; and Catino, Sigmund C., to GAF Corporation. Use of alpha-alkyl (or alkenyl) benzylidene malononitriles as u.v. absorbers, and stabilized compositions and light filters containing same. 3,522,188, 7-28-70, Cl. 252-300.

Strobel, Albert F.; and Catino, Sigmund C., to GAF Corporation. Ultra-violet light absorbing compounds. 3,523,953, 8-11-70, Cl. 260-332.2

Strobel, Albert: *See*—
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Strobel, Albert, to I-T-E Imperial Corporation. Tripper bar mounting arrangement for multi-phase circuit breaker. 3,492,610, 1-27-70, Cl. 335-46.

Strobel, Albert, to I-T-E Imperial Corporation. Current limiting circuit breaker with collapsible cradle structure. 3,505,622, 4-7-70, Cl. 335-16.

Strobel, Albert, to I-T-E Imperial Corporation. Current limiting circuit breaker. 3,534,305, 10-13-70, Cl. 335-16.

Strobelt, Walter; and Friese, Andre, to Siemens Aktiengesellschaft. Subscriber-effected automatic redialing for paths-busy conditions. 3,505,481, 4-7-70, Cl. 179-18.

Strock, Joseph P., to United States of America, Army, mesne. Automatic meter range changer. 3,537,004, 10-27-70, Cl. 324-115.

Strock, Lester W.: *See*—
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Strocker, Gunter, to Gustav Schade Maschinenfabrik. Dump scrapers. 3,517,798, 6-30-70, Cl. 198-36.

Strocker, Gunther; and Fischer, Gerhard, to Maschinenfabrik Gustav Schade. Scraper and conveyor apparatus. 3,487,910, 1-6-70, Cl. 198-36.

Stroco, Inc.: *See*—
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Stroebel, George J. Tarpaulin roller. 3,499,680, 3-10-70, Cl. 296-98.

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Cheape, Dudley W., Jr.; and Stroh, Ernest F.,3,527,557.

Stroh, James A.; and Wesala, Robert J., to Park Chemical Company. Preservative and dressing coating for automobile vinyl tops and the like. 3,527,723, 9-8-70, Cl. 260-22.

Stroh, Werner H.: *See*—
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Stroh, William Sylvester, to Scovill Manufacturing Company. Snap-in tire valve. 3,542,109, 11-24-70, Cl. 152-427.

Strohl, Raymond A. Longhand-writing guide. 3,514,874, 6-2-70, Cl. 35-37.

Strohmaier, Alfred J.; and Whitman, Robert W., to Du Pont de Nemours, E. I., and Company. Process for preparation of a sized zero-twist synthetic fiber yarn and product thereof. 3,511,677, 5-12-70, Cl. 117-7.

Strohmaier, Gary F. Holder for vehicle registration certificate. 3,533,178, 10-13-70, Cl. 40-10.

Strohmeier, Helmut; and Schmidt, Dieter, to Rheinstahl Huttenwerke AG. Quick releasable cover lock for a pressure container. 3,519,296, 7-7-70, Cl. 292-54.

Strohmeier, Robert J. Trailer hitch viewing mirror assembly for mounting on a trailer jack post. 3,524,701, 8-18-70, Cl. 350-307.

Strohmeyer, Charles, Jr., to Electrodyne Research Corporation. Heat exchange apparatus for extracting heat from a nuclear fuel heat producer. 3,507,747, 4-21-70, Cl. 176-51.

Strohmeyer, Charles, Jr., to Electrodyne Research Corporation. Control system for a steam generator. 3,550,562, 12-29-70, Cl. 122-448.

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Strojny, Edwin J., to Dow Chemical Company, The. Bis(3-methylphthalidyl) peroxide and preparation. 3,532,717, 10-6-70, Cl. 260-343.3

Stroker, Gunter, to Schade, Gustav. Storage arrangement. 3,513,995, 5-26-70, Cl. 214-17.

Strole, John C., to Bendix Corporation, The. Method and an electrical signal comparator system to detect a difference between encoded signal information on a pair of different electrical signals. 3,539,930, 11-10-70, Cl. 328-119.

Strole, Ulrich; Klein, Rudolf; and Weidinger, Walter, to Zellstoffabrik Waldhof. Multilayer laterally expansible tube of thermoplastic material. 3,499,470, 3-10-70, Cl. 138-170.

Strom, Albert P.: *See*—
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Strom, Albert P., to Westinghouse Electric Corporation. Hydraulic systems with increased speed of response. 3,500,723, 3-17-70, Cl. 91-460.

Strom, Albert P.; and Cromer, Charles F., to Westinghouse Electric Corporation. Fluid-blast circuit interrupters with extensible movable fluid-directing nozzle. 3,497,653, 2-24-70, Cl. 200-148.

Strom, Gosta E., to Hilti Aktiengesellschaft. Method of driving fastening elements into solid material covered by a compressible material. 3,487,533, 1-6-70, Cl. 29-432.

Strom, Johan Nikolai: *See*—
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Strom, Johan Paul; and Wasterlid, Nils Arne Erland, to U.S. Philips Corporation, mesne. Device for transmitting an accurately determined fixed frequency with a tunable high frequency transmitter tube. 3,548,312, 12-15-70, Cl. 325-131.

Strom, John R., to Sweco, Inc. Vibrating finishing mill. 3,546,821, 12-15-70, Cl. 51-163.

Strom, John Rutledge, to Sweco, Inc. Vertical dam. 3,514,907, 6-2-70, Cl. 51-163.

Strom, Leland D.: *See*—
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Stromberg, Sanford E., to Textron Inc. Water-soluble, polyester resin base, baking vehicle and process of preparing same. 3,549,577, 12-22-70, Cl. 260-29.4

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Sugaya, Horoshi, to Matsushita Electric Industrial Co., Ltd. Methods for manufacturing magnetic heads. 3,494,026, 2-10-70, Cl. 29-603.

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Sugi, Masao; and Yoshida, Kenichi, to Sumitomo Electric Industries, Ltd. Induction radio system for vehicles. 3,527,897, 9-8-70, Cl. 179-82.

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Sugiura, Katsuyoshi, to Denki Onkyo Co., Ltd. Holding devices for centering magnets of cathode ray tubes. 3,521,206, 7-21-70, Cl. 335-212.

Sugiura, Koichi, to Toyota Jidosha Kogyo Kabushiki Kaisha. Adjustable head rest for vehicle seats. 3,512,833, 5-19-70, Cl. 297-410.

Sugiura, Koichi; Ohta, Seizho; and Seo, Kiyokazu, to Toyota Jidosha Kogyo Kabushiki Kaisha. Seat arrangement. 3,515,434, 6-2-70, Cl. 297-396.

Sugiyama, Akira; Tanaka, Tadami; Matsumoto, Rimpey; and Riko, Yasuhiro, to Matsushita Electric Industrial Co., Ltd. Microphone device. 3,515,240, 6-2-70, Cl. 181-31.

Sugiyama, Hiroshi; Kuriyama, Ryozo; Matumoto, Otohei; Imada, Kunihiko; and Matsushita, Yoshio, to Sumitomo Chemical Company, Ltd.Stabilized composition of *p*-quinonedihalomine compound. 3,499,721, 3-10-70, Cl. 8-32.

Sugiyama, Hiroshi; Otsuka, Hideo; and Yamamoto, Masakazu, to Sumitomo Chemical Company, Ltd. Scarlet phenyl-azo-naphthol dyes. 3,510,469, 5-5-70, Cl. 260-200.

Sugiyama, Hiroshi; Otsuka, Hideo; and Yamamoto, Masakazu, to Sumitomo Chemical Company, Ltd. Water-soluble monoazo dyes. 3,515,716, 6-2-70, Cl. 260-200.

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Suzuki, Shigeru, to Nihon Denshi Kabushiki Kaisha. Adjustable specimen stage for electron beam apparatus employing adjusting levers arranged to minimize beam defocussing resulting from thermal expansion of stage components. 3,521,056, 7-21-70, Cl. 250-49.5

Suzuki, Shigeru; and Kanno, Tadaaki, to Kabushiki Kaisha Ricoh. Decurling device for rolled copy paper in a copier. 3,501,375, 3-17-70, Cl. 162-271.

Suzuki, Shigeru; and Koizumi, Yutaka, to Kabushiki Kaisha Ricoh. Exposure adjusting apparatus for a duplicator. 3,504,972, 4-7-70, Cl. 355-51.

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Swaine, Robert L.; and Beusch, Donna W., to Clay, William C., Jr. Dry carbonated cola beverage composition. 3,510,311, 5-5-70, Cl. 99-78.
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Swanson, Allan R., to Clark Equipment Company. Suspension system for a vehicle. 3,549,168, 12-22-70, Cl. 280-124.
Swanson, Arthur F.; and Robberson, Ronald F., to Ideal Industries, Inc. Method and apparatus for forming no-strip wire connection. 3,497,607, 2-24-70, Cl. 174-87.
Swanson, Arthur M., to America Dry Milk Institute, Inc. Treatment of milk to improve its properties for use in yeast-raised bakery goods. 3,518,090, 6-30-70, Cl. 99-56.
Swanson, Bernard H.; and Walker, John T. Target firearm with blow back breech bolt and safety latch therefor. 3,546,803, 12-15-70, Cl. 42-16.
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Swartling, Lennart Gerhard. Apparatus for transversely cutting a plurality of small hollow plastic tubular elements embedded in a solid matrix of plastic material to maintain the ends thereof open. 3,503,288, 3-31-70, Cl. 82-48.
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Swartz, Dorian J., to Hyer Hardware Mfg. Co. Snap acting hinge. 3,550,187, 12-29-70, Cl. 16-180.
Swartz, Elmer L., to United States of America, Army. Fluid induction amplifier. 3,495,609, 2-17-70, Cl. 137-81.5
Swartz, Elmer L., to United States of America, Army. Flueric stall sensor circuit. 3,499,459, 3-10-70, Cl. 137-81.5
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Szabo, Francis S., to Varityper Corporation. Composing copy layout table and cutting device. 3,532,018, 10-6-70, Cl. 83-455.
Szabo, John, to Electrohome Limited. Electronic latching networks. 3,515,907, 6-2-70, Cl. 307-286.
Szabo, John, to Electrohome Limited. Apparatus for creating a chorus or celeste effect with an electronic musical instrument. 3,535,431, 10-20-70, Cl. 84-1.11
Szabo, John, to Electrohome Limited. Active filters. 3,535,649, 10-20-70, Cl. 330-31.
Szabo, Joseph J.: *See—*
Callahan, James Louis; Gertisser, Berthold; and Szabo, Joseph J.,3,519,688.
Szabo, Karoly, to Syracuse University Research Corporation. Production of 6-chloro-3,4-dimethyl-phenol and esters thereof. 3,523,968, 8-11-70, Cl. 260-479.
Szafranski, John G.: *See—*
Katz, Morris H.; and Szafranski, John G.,3,520,698.
Szaj, Arnold P., to Nordberg Manufacturing Company. Bowl liner securing device. 3,539,120, 11-10-70, Cl. 241-299.
Szaj, Raymond R.; and Sexton, Llewellyn F., Jr., to Heil Co., The. Refuse packing mechanism. 3,511,176, 5-12-70, Cl. 100-229.
Szajerski, Sylvester, to Zenith Radio Corporation. High voltage probe with positive contact indicator. 3,513,392, 5-19-70, Cl. 324-122.
Szajna, John L.; and Lump, Ronald G., to Continental Can Company, Inc. Molds for blowing engraved appearing bottles without the use of engraved molds. 3,550,197, 12-29-70, Cl. 18-5.
Szakacs, Gyorgy: *See—*
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Szala, Norman M.: *See—*
Stark, Marvin; and Szala, Norman M.,3,543,692.
Szangolies, Klaus: *See—*
Muller, Wilfried; and Szangolies, Klaus,3,514,205.
Szasz, Imre. Guns for the electrostatic spray coating of objects with a powder. 3,521,815, 7-28-70, Cl. 239-15.
Szasz, Imre: *See—*
Leibundgut, Alfred; and Szasz, Imre,3,504,945.
Szathmary, Csaba: *See—*
Harsanyi, Kalman; Takacs, Kalman; Korbonits, Dezso; and Szathmary, Csaba,3,506,675.
Szawlowski, Theodore H.: *See—*
Rai, Charanjit; and Szawlowski, Theodore H.,3,526,768.
Szczepanek, Alfred; and Koenen, Gunter, to Hoesch-Chemie Gesellschaft mit beschrankter Haftung. Process for preparing metal soap mixtures. 3,519,571, 7-7-70, Cl. 252-400.
Sze, Morgan C.: *See—*
Banchink, Ira N.; Sze, Morgan C.; and Maddock, Maldwin J.,3,527,565.
Sze, Morgan C., to Lummus Company, The. Parallel gas flow reactor. 3,492,099, 1-27-70, Cl. 23-289.
Sze, Morgan C., to Lummus Company, The. Hydrotreating of pyrolysis gasoline (dripolene). 3,493,492, 2-3-70, Cl. 208-255.
Sze, Morgan C., to Lummus Company, The. Chlorine values recovery and use. 3,548,016, 12-15-70, Cl. 260-659.
Sze, Morgan C.; and Gessner, Adolf W., to Lummus Company, The. Process for the catalytic reaction of olefins and alcohols to acetals and ketals. 3,544,599, 12-1-70, Cl. 260-340.9
Riegel, Herbert; Schindler, Harvey D.; and Sze, Morgan C.,3,536,773.
Sze, Simon M.: *See—*
Lepselter, Martin P.; and Sze, Simon M.,3,541,403.
Szegedi Hangszergyar: *See—*
Sebok, Istvan, 3,507,972.
Szegvari, Andrew. Grinding and apparatus therefor. 3,493,182, 2-3-70, Cl. 241-15.
Szekely, George, to G.S. International Laboratory Corporation. Aerosol apparatus for inhalation therapy. 3,522,806, 8-4-70, Cl. 128-173.
Szekely, Otto E. Self-releasing cargo hook. 3,539,217, 11-10-70, Cl. 294-83.1
Szentirmai, George: *See—*
Ferch, Richard L.; Szentirmai, George; and Thomas, Lee C.,3,501,716.

Szentkuti, Charles: *See—*
Noiles, Douglas G.; Szentkuti, Charles; and Swenson, Alan F,3,514,615.
Szentkuti, Charles, to Ivanhoe Research Corporation, mesne. Apparatus for automatically separating the top layer of a multi-layer workpiece. 3,511,494, 5-12-70, Cl. 270-52.
Szentmiklosi, Peter: *See—*
Szoke, Sandor; Szentmiklosi, Peter; David, Agoston; and Horvath, Gabor,3,544,631.
Szentveri, Istvan S. Decorative strip lighting. 3,500,036, 3-10-70, Cl. 240-10.
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Szeremy, Norman; and Katuschenko, Walter, to General Electric Company. Fuse spark gap device for protection against line transient voltages. 3,492,534, 1-27-70, Cl. 317-61.5
Szewczyk, Zdzislaw I.: *See—*
Peace, George M.; Schiffman, Julius; and Szewczyk, Zdzislaw I.,3,525,993.
Sziemkiewicz, Robert J.: *See—*
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Szigeti, Elemer. Sequentially operated brake system. 3,487,894, 1-6-70, Cl. 188-70.
Szilagyi, Bela: *See—*
Price, Howard; and Szilagyi, Bela,3,514,080.
Price, Howard; and Szilagyi, Bela,3,521,555.
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Szilagyi, Istvan, to Messrs. Centropa, Handelsgesellschaft m.b.H. Spark plug with transparent insulating ore. 3,517,247, 6-23-70, Cl. 313-123.
Szilagyi, Katalin, nee Farago: *See—*
Toldy, Lajos; Toth, Istvan; Borsi, Jozsef; Fekete, Marton; Szilagyi, Katalin, nee Farago; and Bitter, Istvan,3,496,183.
Szilagyi, Zsolt: *See—*
Stupp, Edward H.; Cath, Pieter G.; and Szilagyi, Zsolt,3,540,011.
Szinai, Stephen Slomo; and Chakrabarti, Jiban Kumar, to Lilly, Eli, and Company. Acetylated (1-adamantyloxy) alkylamine compounds. 3,539,630, 11-10-70, Cl. 260-561.
Szita, Jeno; Bahr, Ulrich; Marzolph, Herbert; Nisch, Gunther; and Suling, Carlhans, to Farbenfabriken Bayer Aktiengesellschaft. Acrylonitrile copolymers containing sulfonic acid amide groups and a process for their production. 3,497,476, 2-24-70, Cl. 260-79.3
Szita, Jeno; Bahr, Ulrich; Marzolph, Herbert; and Nischk, Gunther, to Farbenfabriken Bayer Aktiengesellschaft. Acrylonitrile copolymers containing sulfonic acid groups. 3,488,330, 1-6-70, Cl. 260-79.3
Szita, Jeno; Rinkler, Heinrich; Nogaj, Alfred; Marzolph, Herbert; and Nischk, Gunther, to Farbenfabriken Bayer Aktiengesellschaft. Acrylonitrile copolymers. 3,520,855, 7-21-70, Cl. 260-79.3
Szita, Jeno; Unger, Otto; Marzolph, Herbert; and Nischk, Gunther, to Farbenfabriken Bayer Aktiengesellschaft. Spinnable solutions of acrylonitrile polymers. 3,511,800, 5-12-70, Cl. 260-30.8
Szita, Jeno; Wieden, Horst; Rinkler, Heinrich; Marzolph, Herbert; and Nischk, Gunther, to Farbenfabriken Bayer Aktiengesellschaft. Acrylonitrile copolymers. 3,493,547, 2-3-70, Cl. 260-79.3
Szita, Jeno; Wieden, Horst; Rinkler, Heinrich; Nogaj, Alfred; Marzolph, Herbert; and Nischk, Gunther, to Farbenfabriken Bayer Aktiengesellschaft. Acrylonitrile copolymers. 3,551,373, 12-29-70, Cl. 260-79.3
Szmuszkovicz, Jacob: *See—*
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Szmuszkovicz, Jacob, to Upjohn Company, The. Ethers of α-phenyl-2-aminocycloalkanemethanols. 3,499,033, 3-3-70, Cl. 260-570.5
Szmuszkovicz, Jacob, to Upjohn Company, The. 2-Hetero-amino-α,α-diaryl-cycloalkonemethanols. 3,506,670, 4-14-70, Cl. 260-294.7
Szmuszkovicz, Jacob, to Upjohn Company, The. 2-anilino and 2-anilinomethyl cycloalkylamines. 3,510,492, 5-5-70, Cl. 260-293.
Szmuszkovicz, Jacob, to Upjohn Company, The. 1-Sec-amino-cyclopropacycloalkanes. 3,527,756, 9-8-0, Cl. 260-246.
Szmuszkovicz, Jacob, to Upjohn Company, The. Bis(alkoxyphenyl) pyrroles and pyrrolines. 3,551,449, 12-29-70, Cl. 260-326.3
Szmuszkovicz, Jacob, to Upjohn Company, The. Trifluoromethyl-substituted 2,3-bis-(p-methoxy phenyl)indoles. 3,551,451, 12-29-70, Cl. 260-326.16
Szmuszkovicz, Jacob; and Cerda, Elisabeth, to Upjohn Company, The. Bis-and mono-quaternary salts of 1-(cyclicamino) cyclopropacycloalkanes. 3,546,233, 12-8-70, Cl. 260-293.
Szobonya, Karl F., to Beckman Instruments, Inc. Method of forming a terminal structure in a refractory base. 3,517,437, 6-30-70, Cl. 29-624.
Szohatzky, Zoltan; and Zahuranec, Emery J., to Crawford Fitting Company. Work stool. 3,520,506, 7-14-70, Cl. 248-188.
Szoke, Sandor; Szentmiklosi, Peter; David, Agoston; and Horvath, Gabor, to Chinoin Gyogyszer es Vegyeszeti Termekek Gyara RT. Tetracycline derivative incorporating the benzene-sulphonate anion. 3,544,631, 12-1-70, Cl. 260-559.
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Szpur, Roman. Syringe needle attachment device. 3,541,663, 11-24-70, Cl. 29-208.
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Miles, Ray P.; and Szucs, Andrew E.,3,549,174.
Szucs, Laszlo: *See—*
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Szulc, Henryk; Michalski, Zdzislaw; Piotrowski, Marian; and Jedrzejewski, Wladyslaw. Process for the production of water insoluble zinc mercaptides. 3,499,019, 3-3-70, Cl. 260-429.9
Szumla, Theodore P.: *See—*
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Wurzburg, Otto B.; and Szymanski, Chester D.,3,525,672.
Heaney, Richard; and Szymanski, Chester,3,520,757.
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Le Clear, Robert L., 3,500,486.
T & T Mfg., Co.: *See—*
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Ta Phuoc, Loc; and Moniere, Henri, to Centre National de la Recherche Scientifique. Hall effect analog multipliers. 3,523,199, 8-4-70, Cl. 307-309.
Taafe, Alfred J., Jr., 50% to Taafe, Alfred J., Sr. Attachment for portable sanding tool. 3,488,897, 1-13-70, Cl. 51-387.
Taafe, Alfred J., Jr., 50% to Taafe, Alfred J., Sr. Cylindrical sanding tool. 3,498,009, 3-3-70, Cl. 51-393.
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Taafe, Alfred J., Jr., 3,498,009.
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Abrahamson Stephen; Denson, Judson S.; Clark, Alfred P.; Taback, Leonard; and Ronzoni, Pullio,3,520,071.
Tabak, Fernando, to Universal Oil Products Company. Recuperative form of direct thermal incinerator. 3,549,333, 12-22-70, Cl. 23-277.
Tabata, Masaaki; Susami, Kozo; and Edagawa, Hiroshi, to Toyo Rayon Company Limited. Spun yarn and its doubled yarn. 3,501,907, 3-24-70, Cl. 57-140.
Tabata, Masaaki; Susuami, Kozo; Edagawa, Hiroshi; and Shinkai, Kunio, to Toray Industries, Inc., and Howa Machinery, Ltd. Spinning method and apparatus manufacturing yarn from textile fibers. 3,523,300, 8-4-70, Cl. 57-58.91
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Susami, Kozo; Tabata, Masaaki; Edagawa, Hiroshi; and Shinkai, Kunio,3,540,201.
Tabe, Kaneko. Driving equipment by an alternating current electromagnet. 3,522,567, 8-4-70, Cl. 335-251.
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Tabeling, Raymond W.; and McGhee, John D., to Du Pont de Nemours, E. I., and Company. Force balances of the electromagnetic type. 3,509,763, 5-5-70, Cl. 73-141.
Taber, David F. Portable straightening device. 3,543,561, 12-1-70, Cl. 72-392.

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Taber, Philip. Apparatus for punching openings in sheet material. 3,500,710, 3-17-70, Cl. 83-588.
Taber, Robert C.; and Brooker, Leslie G.S., to Eastman Kodak Company. Photographic elements containing a light sensitive layer. 3,497,502, 2-24-70, Cl. 260-240.
Taber, Robert C.; Russell, William H.; and Goffe, Charles A., to Eastman Kodak Company. Nucleic acids as fog stabilizers for photographic emulsions. 3,512,982, 5-19-70, Cl. 96-66.5
Taber, Russell E. Pyramid display unit. 3,506,134, 4-14-70, Cl. 211-49.
Taberner, John. Transducer for converting fluid pressure oscillations into mechanical oscillations. 3,511,050, 5-12-70, Cl. 60-54.5
Tabet, Michael A. Rotary switch equipped with shiftable shaft for lifting wiper arms. 3,534,184, 10-13-70, Cl. 200-4.
Tabler, Donald C., to Phillips Petroleum Company. Removal of carbonyls from polymerizable monomers. 3,535,399, 10-20-70, Cl. 260-681.5
Tabler, Donald C., to Phillips Petroleum Company. Production of ethylcyclohexene. 3,546,307, 12-8-70, Cl. 260-666.
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Tabor, Joseph M.; and Donofrio, Alfonso M., to Craft Master Corporation, mesne. Method and apparatus for filling multiple cavity containers with measured charges of liquid. 3,550,648, 12-29-70, Cl. 141-1.
Tabor, Paul C., to Budd Company, The, mesne. Seat back construction. 3,498,669, 3-3-70, Cl. 297-396.
Tabor, Paul C., to Meteor Research Limited. Rotary seat back adjuster. 3,515,433, 6-2-70, Cl. 297-374.
Tabor, Ralph L.; Greenwood, Walter; and Manetta, Peter J., to Simplex Corporation. Transfer system. 3,500,992, 3-17-70, Cl. 198-219.
Tabor, Robert W.: *See—*
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Tabor, Wallace F.; and Williamson, Paul M., to Atlantic Richfield Company. Single phase emulsion inhibitor. 3,549,533, 12-22-70, Cl. 252-32.7
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Tabor, William J., to Bell Telephone Laboratories, Incorporated. Optical readout implementation. 3,515,456, 6-2-70, Cl. 350-151.
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Taborsky, Robert G., to Venue, Ben, Laboratories, Inc. Method of controlling sea lamprey with 3- nitrohalosalicylanilides. 3,527,865, 9-8-70, Cl. 424-230.
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Taccone, Russell W., to Kelsey-Hayes Company. Apparatus for making castings. 3,517,728, 6-30-70, Cl. 164-255.
Taccone, Russell W., to Kelsey-Hayes Company. Method for making castings. 3,540,516, 11-17-70, Cl. 164-61.
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Tachibana, Yoshinobu: *See—*
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Tachick, Henry N., to General Electric Company. Insulated voltage source for high voltage conductor terminations. 3,513,394, 5-19-70, Cl. 324-133.
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Tadakuma, Susumu; and Miyazaki, Yasuaki, to Tokyo Shibaura Electric Co., Ltd. Drive means for 2-phase motor. 3,543,114, 11-24-70, Cl. 318-227.
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Tae, Jaakko I.; and Beard, Archibald K., to Purex Corporation, Ltd. Plastic case desoiling process. 3,528,924, 9-15-70, Cl. 252-156.
Taesler, Rudolf, to Zeiss Ikon Aktiengesellschaft. Motion picture camera with synchro-impulse transmitter. 3,527,529, 9-8-70, Cl. 352-19.
Taesler, Rudolf, to Zeiss Ikon Aktiengesellschaft. Motion picture apparatus with improved impulse transmitter contact structure. 3,546,403, 12-8-70, Cl. 200-24.
Tafeen, Carl H. Paracervical block anesthesia assembly. 3,539,034, 11-10-70, Cl. 128-221.
Tafel, Klaus, to Schloemann Aktiengesellschaft. Cooling system for continuous casting machine. 3,536,127, 10-27-70, Cl. 164-283.
Tafel, Leonard I.; and Hermach, Carl J., to Miehle-Goss-Dexter, Incorporated. Fluid amplifier in ink control arrangement for printing presses. 3,541,959, 11-24-70, Cl. 101-363.
Tafel, Leonard I.; Karch, Richard G.; and Taylor, Larry G., to Miehle-Goss-Dexter, Incorporated. Underside lockup for stereotype printing plate. 3,534,694, 10-20-70, Cl. 101-378.
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Taft, Charles K.; and Smith, Robert D., to Case Western Reserve University. Digital pressure transducer. 3,537,798, 11-3-70, Cl. 356-112.
Taft David D., to Ashland Oil & Refining Company. Curable compositions containing an epoxy, an unsaturated polyester, and a polymerizable vinyl monomer. 3,516,955, 6-23-70, Cl. 260-22.
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Heidecker, Stephen C.; Taft, David D.; and Wallman, Walter A.,3,515,550.
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Tagnon, Luc A., to Societe des Lunetiers, Temkine & Cie. Portable photocoagulator. 3,547,125, 12-15-70, Cl. 128-303.1
Taguchi, Kunio: *See—*
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Tague, Byrl D., to United States of America, Navy. General purpose logic package. 3,538,443, 11-3-70, Cl. 328-92.
Tahara, Tadasu; Takubo, Tadashi; and Matsunaga, Tetsuya, to Nitto Kasei Co., Ltd. Preparation of di- or trialkyltin compounds. 3,496,201, 2-17-70, Cl. 260-429.7
Tahmesian, Gary K.; and Tahmesian, Richard H. Meatball machine. 3,522,624, 8-4-70, Cl. 17-32.
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Tanisawa, Kiko, to Mitsubishi Monsanto Chemical Company. Synthetic protective film for use in plant cultivation and method of making the same. 3,539,545, 11-10-70, Cl. 260-92.8
Tanji, Mikiharu, to Ise Electronics Corporation. Character indicating electron tube. 3,508,101, 4-21-70, Cl. 313-109.5
Tank, Henry G., to Connor Forest Industries. Flooring system. 3,518,800, 7-7-70, Cl. 52-480.
Tanke, Ullrich; Voegtlen, Dieter; Brandt, Fritz; and Bruninghaus, Karl, to Siemens Aktiengeseilschaft. System and process for supervision of signal lines. 3,549,813, 12-22-70, Cl. 179-18.
Tankersley, John Clarke, to AAI Corporation. Automatic circuit testing apparatus including impedance matched coaxial signal transmission systems. 3,496,464, 2-17-70, Cl. 324-73.
Tanmatsu, Katsuo: *See—*
Watanabe, Kazuo; and Tanmatsu, Katsuo,3,499,988.
Tann Company: *See—*
Kearns, Robert W., 3,500,159.
Tannenberger, Helmut; Schachner, Herbert; and Simm, Wolfgang, to Compagnie Francaise de Raffinage. Solid electrolyte fuel-cell battery. 3,507,705, 4-21-70, Cl. 136-86.
Tannenberger, Helmut; and Schmitt, Reimar, to Compagnie Francaise de Raffinage. Battery of fuel cells of solid electrolyte and the process of making these. 3,525,646, 8-25-70, Cl. 136-86.
Tanner, Charles L. Cryogenic face seal. 3,512,789, 5-19-70, Cl. 277-26.
Tanner, Dale. Metering valve. 3,487,980, 1-6-70, Cl. 222-250.
Tanner, David S., to Chromalloy American Corporation. Tethered high altitude platform. 3,534,928, 10-20-70, Cl. 244-33.
Tanner, David, to Du Pont de Nemours, E. I., and Company. Irradiation process for preparing graft copolymers. 3,488,268, 1-6-70, Cl. 204-159.15
Tanner, David: *See—*
Magat, Eugene Edward; and Tanner, David,3,514,385.
Tanner, De Loss J., deceased (by Hellyer, Arthur L.; administrator), to Motorola, Inc. Signal transmission system using DC control signals to selectively operate a television receiver as a monitor and to control an intercom system. 3,492,418, 1-27-70, Cl. 178-5.6
Tanner, De Loss J., deceased (by Hellyer, Arthur L.), to Motorola, Inc. Iris control system. 3,496,289, 2-17-70, Cl. 178-7.2
Tanner, De Loss J., deceased (by Hellyer, Arthur L.; administrator), to Motorola, Inc. Voltage regulator starting system. 3,527,998, 9-8-70, Cl. 323-22.
Tanner, Dennis C.; and Humphreys, Bryan Ernest, to T.K.S. (Aircraft De-Icing) Limited. Liquid flow proportioning devices. 3,530,881, 9-29-70, Cl. 137-561.
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Tanner, Hans: *See—*
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Tanner, Henry E.: *See—*
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Roth, Ernest E.; and Tanner, Henry E.,3,534,872.
Tanner, Howard C.: *See—*
Morrison, Donald J.; and Tanner, Howard C.,3,523,287.
Tanner, James H., to Koerper Engineering Associates Inc. Quickly adjustable end wrench. 3,541,899, 11-24-70, Cl. 81-165.
Tanner, Richard, to Von Roll AG. Process and mechanical equipment for the concomitant incineration of solid refuse and aqueous sewage sludge. 3,529,558, 9-22-70, Cl. 110-8.
Tanner, Richard; Jacobovici, Theodor; and Wuthrich, Fritz, to Von Roll AG. Method and combined furnace for the simultaneous incineration of refuse or garbage and sewage sludge. 3,533,365, 10-13-70, Cl. 110-15.
Tanner, Watson H.; and Wohlfeld, Robert M., to Bell Aerospace Corporation. Directional pressure probe. 3,520,184, 7-14-70, Cl. 73-182.
Tannert, Hans K.: *See—*
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Tannert, Karl H. Circular knitting machine. 3,521,466, 7-21-70, Cl. 66-19.
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Tanouchi, Tadao: *See—*
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Tanoue, Tatsuo, to Kabusiki Gaisha Toyosha. Lawn mower. 3,516,235, 6-23-70, Cl. 56-26.
Tanouy, Pierre Jean Clement; Garre, Pierre Robert; and Le Boulbouech, Jean Andre. Machine for making elongated cooked flat food products. 3,543,694, 12-1-70, Cl. 107-4.
Tanski, John Julian, Sr.: *See—*
Kagdis, William Anthony; and Tanski, John Julian, Sr.,3,493,220.
Tansky, Michael. Violin with timbre bass bar. 3,487,740, 1-6-70, Cl. 84-276.
Tansky, Michael. Piano with lyric timbre sound board. 3,513,745, 5-26-70, Cl. 84-195.
Tant, Chun-Yi. Pedal construction and unicycle incorporating same. 3,506,283, 4-14-70, Cl. 280-221.

Tantillo, Alfred V., to General Bathroom Products Corporation. Hinge means. 3,506,326, 4-14-70, Cl. 312-227.
Tantlinger, Keith W., to Fruehauf Corporation. Semi-trailer and tractor fifth wheel. 3,520,558, 7-14-70, Cl. 280-434.
Tantlinger, Keith W.; and Chieger, George, to Fruehauf Corporation. Coupled chassis. 3,537,727, 11-3-70, Cl. 280-415.
Tantlinger, Keith W.; and Harper, John W., to Fruehauf Corporation. Duct for the power supply conduits of a trailer carried in the trailer floor. 3,494,657, 2-10-70, Cl. 296-28.
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Tanz, Ralph D., to Geigy Chemical Corporation. Antiarrhythmic methods and compositions utilizing N-2-phenyl-2-(2-hydroxy-1-naphthyl) ethyl N° substituted amines and salts thereof. 3,505,458, 4-7-70, Cl. 424-330.
Tanzer, John H., to Ford Motor Company. Transmission ratio control mechanism for a tractor driveline. 3,491,862, 1-27-70, Cl. 192-4.
Tanzer, John J. Adjustable display hook. 3,547,392, 12-15-70, Cl. 248-360.
Tanzman, Herbert D., to Winslow Tele-Tronics, Inc. Speed measuring systemfor moving vehicles employing a digital time measuring device with a nonlinear count rate. 3,492,570, 1-27-70, Cl. 324-70.
Tanzman, Herbert D., to Winslow Tele-Tronics, Inc. Test means for determining the frequency stability of piezoelectric crystals. 3,530,377, 9-22-70, Cl. 324-56.
Tao, Albert H.; and Fronczak, Ernest T., to Simoniz Company. Heat producing package. 3,489,689, 1-13-70, Cl. 252-157.
Tao, Ting Chang, to Fram Corporation, mesne. Differential pressure indicator. 3,547,069, 12-15-70, Cl. 116-70.
Taoka, Tadami; and Sugai, Tetuya, to Yawata Iron & Steel Co., Ltd. Electromagnetic loading device. 3,541,841, 11-24-70, Cl. 73-90.
Taormina, Anthony J., to Essex International, Inc. Lamp bulb with tubular base portion having three notches therein to maintain conductors separated. 3,529,202, 9-15-70, Cl. 313-318.
Taormina, Anthony J.; and Gregory, James T., to Essex International, Inc. Fuse construction. 3,500,462, 3-10-70, Cl. 337-187.
Taormina, Anthony J.; and Witek, Roman J., Jr., to Essex International, Inc. Connector construction. 3,519,978, 7-7-70, Cl. 339-59.
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Taper Tools, Inc.: *See—*
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Taplin, Francis Cyril Eaton; and Axford, John Richard. Electric fuse-link, particularly for outdoor use. 3,522,571, 8-4-70, Cl. 337-203.
Taplin, John F. Pressure regulator. 3,545,471, 12-8-70, Cl. 137-116.5
Taplin, Lael B., to Bendix Corporation, The. Apparatus for transforming rotational rates into fluid signals. 3,525,488, 8-25-70, Cl. 244-78.
Taplin, Lael B., to Bendix Corporation, The. Fluid actuated valve assembly. 3,536,085, 10-27-70, Cl. 137-81.5
Taplin, Lael B.; Datwyler, Walter F., Jr.; Madurski, Joseph P.; and Thompson, Thomas E., to Bendix Corporation, The. Temperature sensor. 3,491,797, 1-27-70, Cl. 137-81.5
Taplin, Lael B.; Datwyler, Walter F., Jr.; Thompson, Thomas E.; and Madurski, Joseph P., to Bendix Corporation, The. Pulse shaper. 3,496,956, 2-24-70, Cl. 137-81.5
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Tapp, Geoffrey Edward Ernest; and Davey, Joseph, to County Commercial Cars Limited. Four wheel drive vehicle. 3,550,711, 12-29-70, Cl. 180-44.
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Brown, Harold E., 3,509,318.
Payne, Richard E., 3,499,433.
Perl, Richard L., 3,488,133.
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Perl, Richard L., 3,499,429.
Perl, Richard L., 3,502,419.
Perl, Richard L., 3,509,319.
Perl, Richard L., 3,525,325.
Perl, Richard L., 3,528,399.
Sauder, Donald R., 3,506,805.
Stratman, Jerome F., 3,510,070.
Teague, Walter Dorwin, Jr., 3,547,507.
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Tappolet, Karl H.; and Gerspacher, Alfred, to Tagers GmbH, Firma. Process for electrical resistance-welding of overlapping sheets. 3,495,065, 2-10-70, Cl. 219-64.
Tapscott, Jesse J., to Rietz Manufacturing Co. Discharge apparatus for processing equipment. 3,506,021, 4-14-70, Cl. 134-104.
Taraba, Joseph F. Work holding apparatus for tack welding. 3,491,995, 1-27-70, Cl. 269-8.
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Tarala, Frederick E., to Dollinger Corporation. Dual filter. 3,488,928, 1-13-70, Cl. 55-274.
Tarala, Frederick E., to Dollinger Corporation. Filter. 3,513,643, 5-26-70, Cl. 55-473.
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Kondratiev, Igor Fedorovich; Bondarenko, Nikolai Ivanovich; Malik, Afanasy Petrovich; Laiko, Pavel Yakovlevich; Taran, Daniil Ilich; Lonschakova, Antonina Vasilievna; Sunurnikova, Vera Mikhailovna; Adonkin, Alexandr Semenovich; Ruzin, Ivan Mikhailovich; Zalesky, jury Mstislavovich; Novikov, Pavel Lvovich; Kiteleva, Alexandr; Konjuk, Viktor Fedorovich; and Kucherenko, Mikhail Maximovich,3,512,349.
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Tarassoff, Alexandre, to Telecommunications Radioelectriques, and Telephoniques T.R.T. Transmission line repeater station for two signals travelling in opposite directions. 3,548,120, 12-15-70, Cl. 179-170.4
Taravella, Salvatore R.; and Russ, Walter L., Jr., to National Gypsum Company. Acoustical grid panels. 3,524,763, 8-18-70, Cl. 117-161.
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Tarbox, Elmer L. Contoured ankle weight. 3,528,652, 9-15-70, Cl. 272-57.
Tarbox, Phlip B., to Maremont Corporation. Drafting roll weighting mechanism. 3,520,029, 7-14-70, Cl. 19-267.
Tarbox, Robert K., to Akro-Tec Incorporated. Valve manifold module and system. 3,513,876, 5-26-70, Cl. 137-596.
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Tarczy-Hornoch, Zoltan; and Young, Patrick, to Rosenberry, W. K., d/b/a Zeta Research. Interpolating time interval counter with course count ambiguity eliminating means. 3,505,594, 4-7-70, Cl. 324-68.
Tarenskeen, Theodore, to United States Steel Corporation. Drive means. 3,507,129, 4-21-70, Cl. 64-1.
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Tarmann, Bruno; and Vonbank, Heinrich, to Gebr. Bohler & Co. Aktiengesellschaft. Process for the manufacture of continuous castings. 3,491,823, 1-27-70, Cl. 164-76.
Tarmann, Bruno; and Vonbank, Heinrich, to Gebr. Bohler & Co. Aktiengesellschaft. Process of producing rolled stock from a high-melting metal by continuous casting and rolling operations. 3,491,824, 1-27-70, Cl. 164-76.
Tarneja, Krishan S.: *See—*
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Tarneja, Krishan S.; and Harding, William R., Jr., to Westinghouse Electric Corporation. Antireflective coatings for solar cells. 3,533,850, 10-13-70, Cl. 136-89.
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Tarnow, Horst: *See—*
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Tarnowski, Betty H., to Dow Chemical Company, The. Thiazinobenzothiazine alkyl sulfonium salts. 3,509,139, 4-28-70, Cl. 260-243.
Tarnowski, Betty H., to Dow Chemical Company, The. Thiazinobenzothiazine carbamates. 3,530,125, 9-22-70, Cl. 260-243.
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Tarrant, Stanley C., to General Motors Corporation. Variable ratio steer linkage. 3,520,210, 7-14-70, Cl. 74-496.
Tarsey, Alexander R., to North American Aviation, Inc. Removal of salts by electrodialysis. 3,488,276, 1-6-70, Cl. 204-301.
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Tart, Jerome Sheldon, to Control Data Corporation. Vertical filter apparatus. 3,510,003, 5-5-70, Cl. 210-284.
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Tartanian, Charles N., to General Electric Company. Light intensity controller for photosensitive pickup tubes. 3,538,335, 11-3-70, Cl. 250-201.
Tartar, Adolphe. Food dispenser for young animals. 3,524,432, 8-18-70, Cl. 119-51.11
Tarte, May C. Artificial leg. 3,546,712, 12-15-70, Cl. 3-24.
Tarter, Carl M.; and Walker, Walter J. Composite valve seat insert and method of overhaul. 3,487,823, 1-6-70, Cl. 123-193.
Tarui, Yasuo; and Denda, Seiichi, to Industrial Science and Technology Ministry of International Trade and Industry, Agency of. Method of testing an electronic device by use of an electron beam. 3,531,716, 9-29-70, Cl. 324-51.
Tarumi, Niro: *See—*
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Tarzaiski, Richard James: *See—*
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Tarzian, George M. Vibratory work-feeder device. 3,500,993, 3-17-70, Cl. 198-220.
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Tasaki, Toshio; and Ouchi, Teruo, to Olympus Optical Co., Ltd. Stereoscopic endoscope. 3,520,587, 7-14-70, Cl. 350-36.
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Tashiro, Kenichi; and Tanaka, Hirokazu, to Denki, Stanley, Kabushiki Kaisha. Light responsive and measuring device. 3,521,962, 7-28-70, Cl. 356-222.
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Tasker, Ronald Vivian; and Holmes, Raymond Leslie, to Clarke, Chapman & Co. Limited. Heat exchangers. 3,517,733, 6-30-70, Cl. 165-166.
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Tassaro, Alfred F., to Aluminum Company of America. Metal slugs and a method of producing the same. 3,507,140, 4-21-70, Cl. 72-327.
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Tasset, Everett J., to American Products, Inc. Frame means for agricultural implements having improved caster wheel means. 3,493,248, 2-3-70, Cl. 280-411.
Tasset, Everett J.; and Hornung, Michael C., to American Products, Inc. Hinge means for foldable frame structures for longitudinal relative movement. 3,493,246, 2-3-70, Cl. 280-411.
Tasset, Everett J.; and Hornung, Michael C., to American Products, Inc. Foldable frame for agricultural implements. 3,493,247, 2-3-70, Cl. 280-411.
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Bissett, Thomas B.; Blair, Harold; Murphy, John B.; and Tatch, Martin S.,3,546,693.
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Tate, Charles G., Jr. Calendar attachment for a wrist watch band. 3,546,800, 12-15-70, Cl. 40-107.
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Tate, David P.; and Carr, Edward L., to Firestone Tire & Rubber Company, The. Liquid vulcanizable rubber composition of matter. 3,501,423, 3-17-70, Cl. 260-8.
Tate, Jack F., to Texaco Inc. Composition and method for treating scale. 3,488,289, 1-6-70, Cl. 252-180.
Tate, Kenneth B., to Pfizer, Chas., & Co., Inc. Apparatus for preparation of microbiological culture media. 3,501,379, 3-17-70, Cl. 195-127.

Tate, Louis D., to Bell Telephone Laboratories, Incorporated. Combination reporting and subscriber telephone. 3,536,853, 10-27-70, Cl. 179r90.
Tate, Malcolm C., to Emery, A. H., Company. Hydraulic system temperature compensator. 3,537,480, 11-3-70, Cl. 138-26.
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Tencza, Frank J., to Hewitt-Robins Incorporated. Flexible support device for conveyor belts. 3,493,098, 2-3-70, Cl. 198-118.

Tendorf, Zbyslaw A.: *See—*
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Tendrup, Donald: *See—*
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Teneholtz, Robert, to Sage Laboratories, Inc. Butt diode contacting. 3,541,480, 11-17-70, Cl. 333-98.

Tenenbaum, Nathaniel D., to Westinghouse Electric Corporation. Electric relay system. 3,496,417, 2-17-70, Cl. 317-33.

Tenex Corporation: *See—*
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Teng, James. Branched fiber and fibrous composition formed therefrom. 3,551,275, 12-29-70, Cl. 161-170.

Tenisons, Janis: *See—*
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Tenkumo, Shohei: *See—*
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Tennant, G. H., Company: *See—*
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Dege, August W., 3,520,965.
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Tennis, Francis H., to Koehring Company, mesne. Control valve with counterbalancing and disection controlling valve element. 3,513,877, 5-26-70, Cl. 137-596.13

Tennis, Francis H., to Koehring Company. Pressure compensated control valve. 3,534,774, 10-20-70, Cl. 137-596.

Tennis, Francis H., to Koehring Company. Fluid flow control instrumentality. 3,534,775, 10-20-70, Cl. 137-596.12

Tennison, Alfred A., Jr.: *See—*
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Tennison, Alfred A., Sr., to Tennison, Alfred A., Jr. Pre-draw crimping method and article. 3,491,573, 1-27-70, Cl. 72-348.

Tennison, Arthur R. Closure for an expansion joint. 3,508,369, 4-28-70, Cl. 52-396.

Tenniswood, David M., to Ford Motor Company. Dual master cylinder. 3,488,959, 1-13-70, Cl. 60-54.6

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Tension Envelope Corporation: *See—*
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Tenusiak, Louise M., to Sarong, Inc. Action zone girdle. 3,542,033, 11-24-70, Cl. 128-528.

Tenzer, Rudolf K., to Electronix Memories & Magnetics Corporation, mesne. Nickel-zinc ferrite containing lead silicate. 3,532,630, 10-6-70, Cl. 252-62.59

Teodorescu, Dan. Electromagnetic actuator. 3,510,730, 5-5-70, Cl. 317-137.

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Teodorovich, Vladislav Antonovich: *See*—
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Teofilato, Antonio: *See*—
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Teot, Arthur S.; and McCoy, Charles E., to Dow Chemical Company, The. Process for the preparation of essentially water-insoluble addition polymers in aqueous dispersion. 3,505,265, 4-7-70, Cl. 260-29.6

Teotino, Uberto M., to Whitefin Holding S. A. Thiamphenicol derivative. 3,542,854, 11-24-70, Cl. 260-482.

Teotino, Uberto M.; and Della Bella, Davide, to Whitefin Holding S.A.1-(α-Pyrryl)-2-amino ethanols. 3,539,589, 11-10-70, Cl. 260-326.5

Teotino, Uberto; and Bella, Davide Della, to Whitefin Holding S.A. N-phenacyl and N-naphthacyl-dl-and l-tropyl tropates and derivatives thereof. 3,534,047, 10-13-70, Cl. 260-292.

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Tepper, Sidney; Boydman, Hyman P.; and Bonanno, Joseph L., to Topper Corporation. Racing toy having manually manipulable vehicle propelling means. 3,514,108, 5-26-70, Cl. 273-86.

Teppgard, Knut Erland, to Sandvikens Jerverks Aktiebolag. Feed device for a pilger rolling mill. 3,512,386, 5-19-70, Cl. 72-189.

Ter-Akopov, Artur Mikhailovich: *See*—
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Terada, Kimiko: *See*—
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Tera, Fouad: *See*—
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Terakopov, Artur Mikhailovich: *See*—
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Teramachi, Hirosh. Shell type tapered bearing. 3,494,683, 2-10-70, Cl. 308-214.

Teramachi, Hiroshi. Ball joint. 3,497,248, 2-24-70, Cl. 287-89.

Teramoto, Iwao: *See*—
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Teranishi, Katsuya; Ichiryu, Ken; and Takenoshita, Mitsuaki, to Hitachi, Ltd. Driving apparatus for moving stairways. 3,499,340, 3-10-70, Cl. 74-229.

Teranishi, Katsuya: *See*—
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Teranishi, Yuichi, to Hitachi, Ltd. Switching device for electronic musical instrument with sustain effect. 3,535,972, 10-27-70, Cl. 84-1.26

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Terao, Kunio, 50% to Okamura Manufacturing Company Limited. Wide gap discharge spark plug. 3,538,372, 11-3-70, Cl. 313-131.

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Terasaki, Takeshi, to Matsushita Electric Industrial Co., Ltd. Silicon P-N junction device and method of making the same. 3,544,395, 12-1-70, Cl. 148-33.

Terasaki, Takeshi: *See*—
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Terbell, Thomas G. Composite playing card sheets. 3,519,274, 7-7-70, Cl. 273-151.

Ter Bush, Charles F.; and Scott, Eugene W., to Westinghouse Electric Corporation. Pressure water cooler construction. 3,529,438, 9-22-70, Cl. 62-394.

Teren, Jack. Rotary tool device with coactive liquid dispensing means. 3,500,490, 3-17-70, Cl. 15-97.

Terenzi, Joseph Francis; and Thompson, Mortimer Stafford, to American Cyanamid Company. Packaged products utilizing a resin composition as a packaging material. 3,524,536, 8-18-70, Cl. 206-45.31

ter Haar, Karel Christiaan, to U.S. Philips Co., Inc., mesne. Welding wire for electric arc-welding in air. 3,518,404, 6-30-70, Cl. 219-146.

Terhune, Wallace I., to Richards Manufacturing Company, Inc. Heat baffle assembly for envelope-covered operating microscope. 3,542,450, 11-24-70, Cl. 350-65.

Terimae, Yasuhiro: *See*—
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Terjesen, Greger B., to Ingersoll-Rand Company. Drill rod coupling arrangement. 3,517,956, 6-30-70, Cl. 287-117.

Terlecky, Boris S.; and Grob, Leonardus F.A., to ACF Industries, Incorporated. Railway flatcar for carrying containers. 3,507,225, 4-21-70, Cl. 105-366.

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Terrell, Ross C., to Air Reduction Company, Incorporated. 1,1,2-Trifluoro-2-bromoethyl difluoromethyl ether and its methods of preparation. 3,527,811, 9-8-70, Cl. 260-614.

Terrell, Ross C., to Air Reduction Company, Incorporated. 1,1-Difluoro-2,2-dichloroethyl difluoromethyl ether and its method of preparation. 3,527,812, 9-8-70, Cl. 260-614.

Terrell, Ross C., to Air Reduction Company, Incorporated. 1,1,2-Trifluoro-2-chloroethyl difluoromethyl ether and its method of preparation. 3,527,813, 9-8-70, Cl. 260-614.

Terrell, Ross C., to Air Reduction Company, Incorporated. 1-Chloro-2,2,2-trifluoroethyl difluoromethyl ether. 3,535,388, 10-20-70, Cl. 260-614.

Terrell, Ross C., to Air Reduction Company, Incorporated. 1-Chloro-2,2,2-trifluoroethyl difluoromethyl ether as an anesthetic agent. 3,535,425, 10-20-70, Cl. 424-342.

Terrett, David S.: *See*—
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Terrill, James R.; and Dzierski, Stanley F., to Aluminum Company of America. Aluminum coated siliceous particles, methods and composites. 3,533,824, 10-13-70, Cl. 117-22.

Terry, Bernard William Hugh: *See*—
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Terry, Carol C.: *See*—
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Terry, Charles. Mold for making mats. 3,536,290, 10-27-70, Cl. 249-103.

Terry, David M.: *See*—
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Terry, Jack H.; and Dimond, John A., to Xerox Corporation. Graphic display device. 3,520,602, 7-14-70, Cl. 355-3.

Terry, Jack H.; Dimond, John A.; and Wharton, Armistead, to Xerox Corporation. Transaction recording apparatus and system. 3,536,395, 10-27-70, Cl. 355-3.

Terry, James L.: *See*—
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Terry, Rupert Douglas; Hannes, George John; and Hahn, William Peter, to Johns-Manville Corporation. Method for forming and curing fibrous materials. 3,518,157, 6-30-70, Cl. 161-170.

Terry, Thomas H., deceased (by Terry, Carol C.; executrix), to Eaton Yale & Towne, Inc. Axle mechanism with adjoining filter housing. 3,502,176, 3-24-70, Cl. 184-6.

Terry, Trent B., to Pennington Garment Company. Shorts and method of making. 3,495,275, 2-17-70, Cl. 2-224.

Terry, Trent B., to Pennington Garment Company. Garment. 3,516,093, 6-23-70, Cl. 2-83.

Terry, William M., to Esso Production Research Company. Method of sand consolidation. 3,548,942, 12-22-70, Cl. 166-276.

Terselic, Richard A.; and Rosenblum, Louis, to United States of America, National Aeronautics and Space Administration. Split welding chamber. 3,493,711, 2-3-70, Cl. 219-72.

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Terwilleger, James D. Game of amusement and education. 3,521,383, 7-21-70, Cl. 35-31.

Terwilliger, Al G. Protective garment. 3,514,786, 6-2-70, Cl. 2-2.5

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Terzic, Brant, to KW Battery Company, mesne. Storage battery protective device. 3,522,481, 8-4-70, Cl. 317-31.

Tesaki, Muneaki: *See*—
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Teschner, Bernard M.: *See*—
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Varga, Josef, 3,533,143.

Tesler, Vladimir Efimovich. Color television system utilizing phase-difference modulation. 3,502,794, 3-24-70, Cl. 178-5.2

Teson, William R. Hose nozzle. 3,550,861, 12-29-70, Cl. 239-546.

Tesoro, Giuliana, C.; and Ring, Richard N., to Stevens, J. P., & Co., Inc. Sulfonamide compounds. 3,506,711, 4-14-70, Cl. 260-556.

Tesoro, Giuliana C., to Stevens, J. P., & Co., Inc. Reaction of polymeric materials containing reactive hydrogen with monofunctional beta-oxyethyl sulfones. 3,492,080, 1-27-70, Cl. 8-115.7

Tesoro, Giuliana C., to Stevens, J. P., & Co., Inc. Silicon-containing amino-phosphonates and process of manufacture. 3,492,193, 1-27-70, Cl. 161-93.

Tesoro, Giuliana C., to Stevens, J. P., & Co., Inc. Reducing agent treatment of cross-linked cellulosic textiles having a ketone group in the cross-link. 3,498,738, 3-3-70, Cl. 8-116.

Tesoro, Giuliana C., to Stevens, J. P., & Co., Inc. Polyvinyl alcohol and starch bound to cellulosic textile substrate through reaction with beta- oxyethyl sulfones. 3,501,260, 3-17-70, Cl. 8-115.6

Tesoro, Giuliana C., to Stevens, J. P., & Co., Inc. Textile treating agents and methods of preparing same. 3,503,701, 3-31-70, Cl. 8-116.3

Tesoro, Giuliana C., to Stevens, J. P., & Co., Inc. Modification of cellulosic materials with tertiary bis-acrylamides. 3,510,247, 5-5-70, Cl. 8-116.2

Tesoro, Giuliana C., to Stevens, J. P., & Co., Inc. Polyfunctional piperazine amides. 3,511,840, 5-12-70, Cl. 260-268.

Tesoro, Giuliana C., to Stevens, J. P., & Co., Inc. Novel cyclic compositions. 3,512,922, 5-19-70, Cl. 8-116.2

Tesoro, Giuliana C., to Stevens, J. P., & Co., Inc. Sulfonamide aziridinyl compounds. 3,520,889, 7-21-70, Cl. 260-268.

Tesoro, Giuliana C., to Stevens, J. P., & Co., Inc. Process for treatment of proteinaceous materials. 3,523,750, 8-11-70, Cl. 8-127.6

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Thomas, Frank J.; and Ruszala, John Stanley, to Bendix Corporation, The. The Function generator network utilizing a transistor including a multiple tap emitter follower. 3,523,195, 8-4-70, Cl. 307-229.
Thomas, Frank J.; and Tawfik, David A., to Bendix Corporation, The. Method and means of synchronizing timing pulses of a three channel triplicated system. 3,522,455, 8-4-70, Cl. 307-269.
Thomas, Frank J.: *See—*
Tawfik, David A.; Thomas, Frank J.; and Pfersch, George H.,3,551,776.
Thomas, Frederick A. Controlled circuitry for charging electrical capacitors. 3,526,821, 9-1-70, Cl. 320-1.
Thomas, Frederick H.: *See—*
Borel, Robert J.; Corey, Leonard S.; Kucharski, Thaddeus W.; Stocking, John L.; and Thomas, Frederick H.,3,533,212.
Thomas, Friedrich: *See—*
Beltz, Klaus; Cremer, Joseph; Muller-Schiedmayer, Gunther; and Thomas, Friedrich,3,526,482.
Cremer, Joseph; Thomas, Friedrich; and Harnisch, Heinz,3,524,725.
Thomas, Garry M., to Monoclad Systems Limited. Finishing strips. 3,505,773, 4-14-70, Cl. 52-717.
Thomas, Geoffrey Bernard: *See—*
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Thomas, George L., to General Electric Company. Semiconductor encapsulation glass. 3,493,405, 2-3-70, Cl. 106-53.
Thomas, George L., to General Electric Company. BaO-PbO-SiO_2 semiconductor encapsulation glass. 3,551,171, 12-29-70, Cl. 106-53.
Thomas, George R.: *See—*
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Thomas, George W., to Conwed Corporation. Ventilating ceiling. 3,492,935, 2-3-70, Cl. 98-40.
Thomas, Glenn E.; and Thomas, James C. Bathtub cleaner. 3,526,916, 9-8-70, Cl. 15-29.
Thomas, Glenn R.: *See—*
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Thomas, Gordon D., to Kimberly-Clark Corporation. High bulk wiping product. 3,546,056, 12-8-70, Cl. 161-57.
Thomas, Gordon James: *See—*
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Thomas, Gwilym G.; and Sissons, Christopher R., to British Nylon Spinners Limited. Nonwoven fabrics containing heterofilaments. 3,551,271, 12-29-70, Cl. 161-150.
Thomas, Hans C. Foldable support structure. 3,508,734, 4-28-70, Cl. 248-459.
Thomas, Harold Edward. Fuel converter. 3,547,416, 12-15-70, Cl. 261-90.
Thomas, Henry J.; and Trusock, George J., to Clark Equipment Company. Apparatus for varying truck speed relative to upright extension. 3,524,522, 8-18-70, Cl. 187-9.
Thomas, Herschel G., Jr.: *See—*
Goldberg, Gerald; Czerwinski, Richard W.; and Thomas, Herschel G., Jr.,3,528,943.
Thomas, Howard M.: *See—*
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Thomas, Hugh; and Turbet, John, to Imperial Chemical Industries Limited. Free-running pentaerythritoltetranitrate and process of preparing same. 3,520,744, 7-14-70, Cl. 149-93.

Thomas, Hulme W., to Bethlehem Steel Corporation. Billet handling apparatus. 3,506,141, 4-14-70, Cl. 214-1.

Thomas, Ian M., to Owens-Illinois, Inc. Methods for preparing organo-polysiloxanes using aluminum hydrolysis catalysts. 3,491,054, 1-20-70, Cl. 260-33.4

Thomas, Ivah M.: *See—*
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Thomas, James Arthur. Portable power saw guide for mitre cuts and the like. 3,543,816, 12-1-70, Cl. 143-6.

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Thomas, James E. C.: *See—*
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Thomas, James J., 50% to Newton, Billie E. Transilluminating flashlight. 3,527,932, 9-8-70, Cl. 240-6.4

Thomas, James L. Method of pressure equalizing for blast furnace top. 3,549,138, 12-22-70, Cl. 266-27.

Thomas, Jean Claude, to Produits Chimiques Pechiney-Saint-Gobain. Polymerization of vinyl chloride. 3,522,227, 7-28-70, Cl. 260-92.8

Thomas, Jean Claude, to Produits Chimiques Pechiney-Saint-Gobain. Apparatus for the preparation in mass of vinyl chloride polymers. 3,544,280, 12-1-70, Cl. 23-290.

Thomas, Jean Claude; Fournel, Francis; and Soussan, Salomon, to Produits Chimiques Pechiney-Saint-Gobain. Graft polymerization in mass of vinyl chloride on an ethylene-vinyl acetate copolymer. 3,544,660, 12-1-70, Cl. 260-878.

Thomas, Jean Claude; Marbach, Michel; and Muller, Francois M., to Produits Chimiques Pechiney-Saint-Gobain. Polymerization of vinyl chloride in mass. 3,538,062, 11-3-70, Cl. 260-78.5

Thomas, Jean Claude: *See—*
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Thomas, Jean; and Galdabini, Renzo. Hydraulic unit. 3,487,788, 1-6-70, Cl. 103-162.

Thomas, Jesse B.: *See—*
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Thomas, John B., to Massey-Ferguson (Australia) Limited. Threshing and separating mechanism for combines. 3,537,459, 11-3-70, Cl. 130-27.

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Thomas, John Lionel: *See—*
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Thomas, John P. Etchant regeneration apparatus. 3,526,560, 9-1-70, Cl. 156-345.

Thomas, Joseph Edward, to Sylvania Electric Products, Inc. Transistorized control circuitry for television receiver. 3,548,097, 12-15-70, Cl. 178-7.3

Thomas, Joseph Edward: *See—*
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Thomas, Joseph E., to Halliburton Company. Linearizing circuit for net oil analyzers. 3,550,019, 12-22-70, Cl. 328-140.

Thomas, Joseph John; and Hucks, Robert Tyler, to Johns-Manville Corporation. Fluid conduit. 3,496,964, 2-24-70, Cl. 138-109.

Thomas, Joy M.: *See—*
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Thomas, Klaus: *See—*
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Thomas, Leonard L. Device for trapping solids and liquids in tobacco smoke. 3,548,835, 12-22-70, Cl. 131-10.5

Thomas, Lewis C., to Bell Telephone Laboratories, Incorporated. Automatic threshold level selection and eye tracking in digital transmission systems. 3,534,273, 10-13-70, Cl. 328-162.

Thomas, Lewis H. Combination door and canopy. 3,497,998, 3-3-70, Cl. 49-70.

Thomas, Lois J., (formerly Duggan, Lois J.): *See—*
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Thomas Machine, Inc.: *See—*
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Thomas Machinery Corporation: *See—*
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Thomas, Mack Finis, Jr., to Psychosync, Inc. Muff-glove combination. 3,491,373, 1-27-70, Cl. 2-66.

Thomas, Malcolm H.: *See—*
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Thomas, Martha J. B.: *See—*
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Bouchard, Andre C.; Gaudet, Peter W.; and Thomas, Martha J. B.,3,547,680.
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Thomas Morton I.; and Edwards, Donald W. Shower bath chair. 3,512,187, 5-19-70, Cl. 4-185.

Thomas, Otto: *See—*
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Thomas, Otto, to Schneider, Jos., & Co. Optische Werke. Mechanism for differentially displacing two optical components. 3,533,344, 10-13-70, Cl. 95-45.

Thomas, Otto; Koppe, Herbert; Ludwig, Gerhard; Mentrup, Anton; and Zeile, Karl, to Boehringer Ingelheim G.m.b.H. 1-Cyanophenoxy-2-amino-alkanes. 3,515,741, 6-2-70, Cl. 260-465.

Thomas, Owen H.; Beck, Thomas A.; and Wickman, Robert F., to Sinclair Oil Corporation. Moving bed process using sieve catalyst to make xylenes by toluene disproportionation and trans- Alkylation with C_9-C_{10} alkylbenzenes. 3,551,509, 12-29-70, Cl. 260-672.

Thomas, Philip R., to Texas Instruments, Incorporated. Stabilized integrated circuit and process for fabricating same. 3,489,953, 1-13-70, Cl. 317-101.

Thomas, Rainer; Keiler, Wilfred; and Weber, Paul, to Phrix-Werke Aktiengesellschaft. Method for spinning viscose. 3,494,995, 2-10-70, Cl. 264-196.

Thomas, Ray I.: *See—*
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Thomas, Richard A. Walking and balance training aid. 3,545,747, 12-8-70, Cl. 273-1.

Thomas, Richard A.: *See—*
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Thomas, Richard E., to Dick, A. B., Company. Reversible concealed image device and method of. 3,508,344, 4-28-70, Cl. 35-9.

Thomas, Richard E.: *See—*
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Thomas, Richard V., to Tally Corporation. Electronic damping system and method for double rotor-stator stepping motor. 3,500,156, 3-10-70, Cl. 318-138.

Thomas, Richard V. Apparatus for making honeycomb coreboard. 3,523,853, 8-11-70, Cl. 156-354.

Thomas, Robert Albert, to Trefileries Leon Bekaert, P.V.B.A. Wire mesh barrier for turnpikes and method for erecting same. 3,512,758, 5-19-70, Cl. 256-13.1

Thomas, Robert K.: *See—*
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Thomas, Robert M.: *See—*
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Thomas, Robert M. Transistor triac regulated power supply. 3,506,905, 4-14-70, Cl. 321-18.

Thomas, Robert O. Check controlled dispensing machine with article selection indicator. 3,526,308, 9-1-70, Cl. 194-10.

Thomas, Robert W.: *See—*
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Thomas, Ronald R.: *See—*
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Thomas, Samuel M., Jr.: *See—*
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Thomas Samuel Owen: *See—*
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Thomas, Stanley E., Jr. Reusable bag fastener. 3,535,746, 10-27-70, Cl. 24-30.5

Thomas, Terry; Alfonsi, Eric A.; Alessandro, Frank J.; Gaebler, Gunther G.; and Bergey, John M. K., to United States of America, Navy. Coded strip positioning apparatus. 3,538,313, 11-3-70, Cl. 235-150.27

Thomas, Thomas R., deceased (by Thomas, Ivah M.; administratrix), to Auto Research Corporation. Fluorinated silicone valve meter unit. 3,506,091, 4-14-70, Cl. 184-7.

Thomas, Vitas T.; and Lovdahl, Robert A., to Tomco, Inc. Cylindrical body rams with mounting accessories. 3,511,136, 5-12-70, Cl. 92-161.

Thomas, Vitas T.; and Lovdahl, Robert A., to Tomco, Inc. Valve for manual control of hydraulic cylinders. 3,527,250, 9-8-70, Cl. 137-565.

Thomas, Walter Moreland: *See—*
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Thomas, Walter W., to Hercules Incorporated. Polypropylene compositions containing polyester amines. 3,551,521, 12-29-70, Cl. 260-873.

Thomas, Warren R. Telescope having multiple objective mirrors. 3,507,547, 4-21-70, Cl. 350-55.

Thomas, Wilbur C. Spacer for rotary slitting knives and the like. 3,520,221, 7-14-70, Cl. 83-664.

Thomas, Wilbur E., to General Binding Corporation. Punching configuration. 3,504,588, 4-7-70, Cl. 83-685.

Thomas, William G.; and Wesner, Charles R., to Sperry Rand Corporation. Dual speed steering system. 3,488,954, 1-13-70, Cl. 60-52.

Thomas, William Llewelyn: *See—*
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Dewey, James F.; Scheitlin, Thomas G.; and Thomas, William R.,3,509,697.
Gambill, Ulysses T.; and Thomas, William R.,3,507,730.

Thomasian, Harvey A., to Lowell Corporation. Double acting torque wrench. 3,546,932, 12-15-70, Cl. 73-139.

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Thomassen & Drijver-Verblia N.V.: *See—*
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Thomassen-Behle, Helga Emily Louise, to Vorstelman, Carel. Playing die. 3,495,832, 2-17-70, Cl. 273-146.

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Thomasset, Paul A., to Sterling Drug Inc. Halogenated fluorescein compositions and process. 3,532,789, 10-6-70, Cl. 424-64.

Thomassin, Robert Charles. Lure for fishing. 3,490,165, 1-20-70, Cl. 43-42.09

Thomasson, Gene I.; and Parillo, Edward V., to General Electric Company. Quartz to metal seal for electrical devices. 3,515,420, 6-2-70, Cl. 287-189.365

Thomaston Special Tool and Mfg. Co., Inc.: *See—*
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Thome, Paul: *See—*
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Thome, Paul, to Commissariat a l'Energie Atomique. Shielded enclosure providing resistance to high temperatures and pressures. 3,497,421, 2-24-70, Cl. 176-87.

Thome, Paul, to Commissariat a l'Energie Atomique. Device for monitoring parallel tubular elements. 3,511,091, 5-12-70, Cl. 73-343.

Thomen, George H., to Schlumberger Technology Corporation. Method for prestressing armored cable. 3,530,661, 9-29-70, Cl. 57-162.

Thominet, Michel Leon, to Societe d'Etudes Scientifiques et Industrielles de l'Ile-de-France. Method of treatment of nervous tensions in mammals with certain substituted indoles and indolines. 3,496,275, 2-17-70, Cl. 424-274.

Thominet, Michel Leon; and Engelhardt, Edward L., to Societe d'Etudes Scientifiques et Industrielles de l'Ile-de-France. Methods of treatment of psychosis in mammals with substituted methylenedioxybenzamides. 3,495,007, 2-10-70, Cl. 424-282.

Thominet, Michel Leon; and Engelhardt, Edward L., to Societe d'Etudes Scientifiques et Industrielles de l'Ile-de-France. Methods of treatment of pain in mammals with substituted methylenedioxybenzamides. 3,495,008, 2-10-70, Cl. 424-282.

Thompson, Albion J., to Great Northern Paper Company. Web void marking device. 3,508,995, 4-28-70, Cl. 156-364.

Thompson, Allan R., to Clevite Corporation. Edge writing recorder with core magnet. 3,550,156, 12-22-70, Cl. 346-136.

Thompson, Andrew C.: *See—*
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Thompson, Arthur H., to Lear Siegler, Inc. Volume measuring method and apparatus. 3,489,002, 1-13-70, Cl. 73-149.

Thompson Bagel Machine Mfg. Corporation: *See—*
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Thompson, Bernard G., to International Business Machines Corporation. Ripple-free binary coded decimal accumulator forming correct result during single memory accessing cycle. 3,521,043, 7-21-70, Cl. 235-170.

Thompson, Bernard L.: *See—*
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Thompson, Blair C.: *See—*
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Thompson, Brian Hoyle, to Gas Council, The. Distributors of fluidizing media for fluidized beds. 3,527,575, 9-8-70, Cl. 23-284.

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Thompson, Charles E.: *See—*
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Thompson, Charles H., to General Motors Corporation. Fluid delivery control system. 3,495,404, 2-17-70, Cl. 60-52.

Thompson, Charles M.: *See—*
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Thompson, Charles S.: *See—*
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Thompson, Chester H.; and Cooper, Jesse E., to Chrysler Corporation. Switch actuating device. 3,531,606, 9-29-70, Cl. 200-81.9

Thompson, Clayton B. System and apparatus for feeding livestock. 3,534,709, 10-20-70, Cl. 119-56.

Thompson, Cullen R., to Shell Oil Company. Method of mining relatively thick mineral deposits. 3,527,500, 9-8-70, Cl. 299-11.

Thompson, Daniel T., to Thompson Bagel Machine Mfg. Corporation. Mandrel for automatic bagel forming machine. 3,491,704, 1-27-70, Cl. 107-8.

Thompson, David A.: *See—*
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Thompson, David F. Semi-airborne vehicle. 3,522,785, 8-4-70, Cl. 114-66.5

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Thompson, David Thomas, to Imperial Chemical Industries Limited. Secondary phosphine derivatives of transition metal carbonyls. 3,489,780, 1-13-70, Cl. 260-429.

Thompson, E Francis. Simultaneous multiple-image display. 3,502,401, 3-24-70, Cl. 352-69.

Thompson, Earl A., Manufacturing Co.: *See—*
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Thompson, Earl A., 3,501,976.
Thompson, Earl A., 3,503,375.

Thompson, Earl A., to Thompson, Earl A., Manufacturing Co. Lubricating overhead rocker arm. 3,500,810, 3-17-70, Cl. 123-196.

Thompson, Earl A., to Thompson, Earl A., Manufacturing Co. Camshaft. 3,501,976, 3-24-70, Cl. 74-567.

Thompson, Earl A. Rocker arm. 3,502,058, 3-24-70, Cl. 123-90.

Thompson, Earl A., to Thompson, Earl A., Manufacturing Co. Valve. 3,503,375, 3-31-70, Cl. 123-188.

Thompson, Earl A., to Thompson, Earl, Manufacturing Co. Composite valve structure. 3,508,529, 4-28-70, Cl. 123-188.

Thompson, Earl L., to Pullman Incorporated. Hydraulic draft gear arrangement. 3,493,124, 2-3-70, Cl. 213-43.

Thompson, Earl, Manufacturing Co.: *See—*
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Thompson, Earl R.: *See—*
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Thompson, Edward J.: *See—*
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Thompson, Edward J., to Upjohn Company The. Purification of 4,4'-methylene dianiline by crystalization. 3,542,871, 11-24-70, Cl. 260-570.

Thompson, Edwin P.: *See—*
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Thompson, Elbert Gordon, to Sutton Engineering Company. Roll changing system for straighteners and the like. 3,498,099, 3-3-70, Cl. 72-238.

Thompson, Elliott P. Gauge holder. 3,515,398, 6-2-70, Cl. 279-14.

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Thompson, Eugene D. Baled feed mills. 3,491,815, 1-27-70, Cl. 146-70.1

Thompson, Flora L., to Ethicon, Inc. Spandex suture needle combination. 3,534,740, 10-20-70, Cl. 128-339.

Thompson, Francis T.: *See—*
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Thompson, Francis T., to Westinghouse Electric Corporation. Amplifying apparatus operable to two stable output states. 3,504,196, 3-31-70, Cl. 307-248.

Thompson, Francis T., to Westinghouse Electric Corporation. Time delay circuit for electric network protection. 3,544,846, 12-1-70, Cl. 317-33.
Willard, Frank G.; Thompson, Francis T.; and Booker, Clyde A., Jr.,3,530,458.

Thompson, Frank R. Heat motor and valve. 3,540,479, 11-17-70, Cl. 137-625.5

Thompson, George D.Shock absorbing handle for an archer's bow. 3,513,820, 5-26-70, Cl. 124-23.

Thompson, George J.; and Rodriquez, Gumersindo, to United States of America, Navy. Coaxial cable with inner and outer sodium conductors. 3,507,976, 4-21-70, Cl. 174-74.

Thompson, George Roland: *See—*
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Thompson, Gilbert B.: *See—*
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Thompson, Gregory L.: *See—*
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Thompson, Harold B. Microfiche retrieval unit with solenoid film filter. 3,515,886, 6-2-70, Cl. 250-219.

Thompson, Harold F., to Minnesota Mining and Manufacturing Company. Film cartridge shipping container. 3,540,616, 11-17-70, Cl. 220-20.

Thompson, Harold J., Jr. Apparatus and method for mounting films. 3,536,555, 10-27-70, Cl. 156-108.

Thompson, Harold K.: *See—*
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Thompson, Harris A. Brush wear indicator. 3,523,288, 8-4-70, Cl. 340-267.

Thompson, Harwell B.; and Kaulins, Edward, to Timex Corporation. Horological regulator. 3,540,211, 11-17-70, Cl. 58-109.

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Thompson, Henry C., to Thompson Chemicals, Inc. Synthetic resin composition, method and product. 3,502,610, 3-24-70, Cl. 260-38.

Thompson, Herbert Lytle, to Universal Oil Products Company. Process for the extraction and recovery of aromatic hydrocarbons. 3,537,984, 11-3-70, Cl. 208-321.

Thompson, Herbert Lytle, to Universal Oil Products Company. Process for the extraction and recovery of aromatic hydrocarbons. 3,544,453, 12-1-70, Cl. 208-321.

Thompson, Horace G., to United States of America, Navy. Unfolding parabolic antenna. 3,503,072, 3-24-70, Cl. 343-705.

Thompson, Howard. Nut tool rack. 3,542,209, 11-24-70, Cl. 211-60.

Thompson, Hugh L. Iron lifter for seam busters. 3,510,972, 5-12-70, Cl. 38-42.

Thompson, Ira F.; and Barbin, Robert L., to RCA Corporation. Color television display system with reduced pincushion distortion. 3,495,124, 2-10-70, Cl. 315-13.

Thompson, Jack M. Apparatus for disabling a trailer hitch. 3,492,023, 1-27-70, Cl. 280-507.

Thompson, James E., to Motorola, Inc. Integrated harmonic mixer circuit including an emitter coupled differential amplifier. 3,491,301, 1-20-70, Cl. 325-451.

Thompson, James E., to Procter & Gamble Company, The. Production of α-hydroxy acids and esters. 3,492,325, 1-27-70, Cl. 260-410.9

Thompson, James E., to Motorola, Inc. Timing circuit for a flash camera. 3,496,411, 2-17-70, Cl. 253-241.

Thompson, James E., to Motorola, Inc. Alternator voltage regulation utilizing a constant current source. 3,546,563, 12-8-70, Cl. 322-28.

Thompson, James Elbert, to Motorola, Inc. Alternator voltage regulation responsive to temperature. 3,496,447, 2-17-70, Cl. 322-23.

Thompson, James Elbert, to Motorola, Inc. Temperature responsive output voltage apparatus. 3,505,590, 4-7-70, Cl. 323-19.

Thompson, James Elbert, to Motorola, Inc. Temperature compensated voltage regulation. 3,522,482, 8-4-70, Cl. 317-31.

Thompson, James Elbert, to Motorola, Inc. Sequential light flasher. 3,544,962, 12-1-70, Cl. 340-67.

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Thompson, James H.: *See—*
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Thompson, James T., to General Motors Corporation. Method of vacuum forming laminated articles. 3,551,232, 12-29-70, Cl. 156-87.

Thompson, Jence F. Repository for cremated remains. 3,529,730, 9-22-70, Cl. 211-71.

Thompson, Jerome B. Fluid reactor. 3,525,593, 8-25-70, Cl. 23-259.

Thompson, John B., to Eastman Kodak Company. Emulsifier composition for cakes and method of preparing cakes utilizing the same. 3,494,771, 2-10-70, Cl. 99-92.

Thompson, John B.: *See—*
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Thompson, John D., to PPG Industries, Inc. Method for surfacing glass. 3,488,895, 1-13-70, Cl. 51-283.

Thompson, John F., to Weaver, W. R., Company. Method for forming reticle for optical sighting instruments. 3,540,256, 11-17-70, Cl. 72-299.

Thompson, John Frank, to M. B. Metals Limited. Strip cable connector. 3,533,049, 10-6-70, Cl. 339-99.

Thompson, John Hilton: *See—*
Radley, Jack Augustus; Fraser, William Stuart; Moss, George Ernest; and Thompson, John Hilton,3,504,384.

Thompson, John P., to Thogus Products Company. Hanger for wire bundles. 3,500,505, 3-17-70, Cl. 24-16.

Thompson, John S.: *See—*
Keast, Russell R.; Krusius, Ewald H.; and Thompson, John S.,3,488,420.

Thompson, John S., to Hooker Chemical Corporation. Metal treating process. 3,535,168, 10-20-70, Cl. 148-6.16

Thompson, John S.; Keast, Russell R.; and Krusius, Ewald H., to FMC Corporation. Process for producing sanitizing tablets comprising an isocyanurate or an isocyanuric acid and paradichlorobenzene. 3,496,269, 2-17-70, Cl. 424-20.
Vlner, Derek G.; and Thompson, John S.,3,545,900.

Thompson, John T.: *See—*
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Gillemot, George W.; and Thompson, John T.,3,523,607.

Thompson, John W.: *See—*
Tholstrup, Clarence E.; and Thompson, John W.,3,494,886.

Thompson, John W.; and Jackson, Winston J., Jr. Polycarbonate and polyester compositions stabilized with substituted phenothiazines. 3,494,885, 2-10-70, Cl. 260-45.8

Thompson, Joseph C.; and Heisterberg, Milton W., to General American Transportation Corporation. Sectional floating roof and roof section therefor. 3,493,143, 2-3-70, Cl. 220-26.

Thompson, Joseph L., to Carrier Corporation. Collector assembly for electrostatic air precipitators. 3,509,696, 5-5-70, Cl. 55-131.

Thompson, Josephus B., deceased (by Stade, K. E.; administrator), to Columbia Broadcasting System, Inc. Angularly and radially adjustable spur assembly for bass drums. 3,541,914, 11-24-70, Cl. 84-421.

Thompson, Josephus B., deceased (by Stade, K. E.; administrator), to Columbia Broadcasting System, Inc. Foot-operated percussion musical instrument. 3,548,068, 12-15-70, Cl. 84-422.

Thompson, Keith Stanley: *See—*
Nixon, Arthur William; and Thompson, Keith Stanley,3,537,344.

Thompson, Kenneth E., Jr.; and Yallourakis, Michael D., to Du Pont de Nemours, E. I., and Company. High temperature palming of ligated fibrous mats. 3,503,107, 3-31-70, Cl. 28-74.

Thompson, Kenneth Wade; Price, Richard Thompson; Prodell, Rita Cecilia; and Sipsey, Matilda Martha, to Organon, Inc. Culture and diagnostic method for treponema pallidum organisms. 3,502,546, 3-24-70, Cl. 195-96.

Thompson, Kirk D.: *See—*
Friend, Lawrence O.; and Thompson, Kirk D.,3,533,023.

Thompson, Laura Aurora, 15% to DeFranco, Walter John. False eyelash curling kit. 3,543,773, 12-1-70, Cl. 132-79.

Thompson, Lionel Raymond Frank, to Hawker Siddeley Dynamics Limited. Temperature compensation circuits. 3,519,826, 7-7-70, Cl. 250-83.3

Thompson, Lionel Raymond Frank; and Bullock, Leslie, to Howker Siddeley Dynamics Limited. Detection of overheated axle boxes. 3,546,447, 12-8-70, Cl. 246-169.

Thompson, Lionel Raymond Frank: *See—*
Porter, Brian; Thompson, Lionel Raymond Frank; and Bullock, Leslie,3,543,029.

Thompson, Lowell V., to United States of America, Navy. Apparatus for simulating clutter in testing AMTI radar systems. 3,500,407, 3-10-70, Cl. 343-17.7

Thompson, Lowell V., to United States of America, Navy. Apparatus for enhancing the target detection capabilities of compressed-pulse AMTI radars. 3,508,263, 4-21-70, Cl. 343-17.2

Thompson, Malcolm F.: *See—*
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Thompson Manufacturing Company, Inc.: *See—*
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Thompson, Marion L.: *See—*
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Thompson, Marion L., to Modern Tube Bending & Manufacturing. Exhaust header. 3,545,414, 12-8-70, Cl. 123-52.

Thompson, Marvin F.: *See—*
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Thompson, Marvin M.: *See—*
Woloveke, Eugene L.; and Thompson, Marvin M.,3,540,498.

Thompson, McKinley W., Jr. Automobile body construction. 3,550,948, 12-29-70, Cl. 296-28.

Thompson, Mortimer Stafford: *See—*
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Thompson, Norman D.: *See—*
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Thompson Optical Engineering Co.: *See—*
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Thompson, Paul William: *See—*
Thompson, Raymond E.; Thompson, Paul William; and Thompson, Gilbert B.,3,533,167.

Thompson, Quentin E., to Monsanto Company. Functional ester base fluids containing corrosion inhibitors. 3,505,230, 4-7-70, Cl. 252-57.

Thompson, Quentin E., to Monsanto Company. Lubricant composition. 3,546,116, 12-8-70, Cl. 252-42.7

Thompson, Quentin E.: *See—*
Gieseking, Carl W.; Thompson, Quentin E.; and Weiss, Richard W.,3,490,737.
Herber, John F.; and Thompson, Quentin E.,3,531,550.

Thompson, Ralph Brewster, to Nalco Chemical Company. Method for cleaning oven walls. 3,537,894, 11-3-70, Cl. 134-2.

Thompson, Ralph D.: *See—*
Nathanson, Norman R.; and Thompson, Ralph D.,3,502,127.

Thompson, Raymond E.; Thompson, Paul William; and Thompson, Gilbert B. Combined spirit level and inclinometer. 3,533,167, 10-13-70, Cl. 33-210.

Thompson, Raymond, to Westinghouse Electric Corporation. Three-phase regulator systems. 3,530,358, 9-22-70, Cl. 321-5.

Thompson, Raymond, to Westinghouse Electric Corporation. Regulator apparatus including static switching circuit having mid-tapped inductor. 3,530,369, 9-22-70, Cl. 323-22.

Thompson, Reuel E.: *See—*
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Thompson, Richard A.: *See—*
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Thompson, Richard G., to Landa Company, The. Apparatus and method for regenerating a water softening system. 3,531,402, 9-29-70, Cl. 210-35.

Thompson, Robert A.; Grabkowski, Stephen E.; and Weichbrodt, Bjorn, to General Electric Company. Machining stability detector. 3,550,107, 12-22-70, Cl. 340-267.

Thompson, Robert Arthur: *See—*
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Thompson, Robert B.: *See—*
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Fisher, William T.; Thompson, Robert D.; Patterson, Charles B.; and Dahl, Stanley M.,3,521,558.

Thompson, Robert G., to Du Pont de Nemours, E. I., and Company. Polymeric bicyclohexyl-4,4'-dimethylene- 4,4'-bibenzoates and related linear polymers. 3,492,272, 1-27-70, Cl. 260-75.

Thompson, Robert G. Articulated carrying means. 3,537,628, 11-3-70, Cl. 224-5.

Thompson, Robert J.: *See—*
Greenler, Robert J.; and Thompson, Robert J., 3,520,669.
Greenler, Robert J.; and Thompson, Robert J.,3,520,672.

Thompson, Robert R., to Pan American Petroleum Corporation. Extraction of hydrocarbon gases from earth samples. 3,539,299, 11-10-70, Cl. 23-230.

Thompson, Robert R.: *See—*
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Thompson, Robert W., to Computing Devices of Canada Limited. Automatic telegraphic signal generator. 3,530,240, 9-22-70, Cl. 178-17.

Thompson, Ron E.: *See—*
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Thompson, Ronald Austin: *See—*
Davis, Anthony Charles; and Thompson, Ronald Austin,3,505,298.

Thompson, Samuel G.: *See—*
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Thompson, Sheldon L.; and Olenzak, Albert T., to Sun Oil Company. Hydrocracking. 3,511,772, 5-12-70, Cl. 208-112.

Thompson, Sheldon L.: *See—*
McVay, Donald R.; Olenzak, Albert T.; and Thompson, Sheldon L.,3,514,395.

Thompson, Taylor N.: *See—*
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Bender, Charles E.; Thompson, Taylor N.; and Fraser, Douglas S.,3,537,189.
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Taplin, Lael B.; Datwyler, Walter F., Jr.; Thompson, Thomas E.; and Madurski, Joseph P.,3,496,956.

Thompson, Thomas L., to Chicago Aerial Industries, Inc. Control circuits for inductive loads. 3,530,353, 9-22-70, Cl. 318-341.

Thompson, Thomas Raymond. Data capture. 3,541,519, 11-17-70, Cl. 340-172.5

Thompson, Thomas T. Adjustable progressive punch die. 3,524,370, 8-18-70, Cl. 83-255.

Thompson, Thomas Walton: *See—*
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Baker, Joseph C.; and Thompson, Thomas W.,3,515,063.

Thompson, Verne P.; Gardella, Stephen L., Jr.; and Larkin, Artemas M., 25% to Wied, Wilson W. Power activated manacle. 3,545,237, 12-8-70, Cl. 70-16.

Thompson, Virley L. Portable steering mechanism for hoop mobile. 3,535,820, 10-27-70, Cl. 46-220.

Thompson, Wallace T., to Sylvania Electric Products, Inc. Differential AGC circuit. 3,531,732, 9-29-70, Cl. 330-29.

Thompson, Wallace W.; and Golding, David R. V., to North American Rockwell Corporation. Hydroxylammonium perchlorate manufacture. 3,508,864, 4-28-70, Cl. 23-85.

Thompson, Walter W. Acoustical ceiling. 3,505,771, 4-14-70, Cl. 52-495.

Thompson, Walter W. Partition system. 3,508,364, 4-28-70, Cl. 52-122.

Thompson, Walter W. Acoustical ceiling system. 3,550,341, 12-29-70, Cl. 52-488.

Thompson, Wendell L.: *See—*
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Parr, Edward L., 3,494,404.
Parr, Edward L., 3,494,583.
Parr, Edward L., 3,526,933.
Parr, Edward L., 3,545,276.

Thompson, William Ansel. 50% to Moore, Alvin E. Electrically-fired gun having a vertically movable missile transferring and firing chamber means. 3,495,349, 2-17-70, Cl. 42-84.

Thompson, William C. Combined lamp and switch unit for portable caseless flashlights. 3,504,170, 3-31-70, Cl. 240-10.61

Thompson, William H.; and Young, Eldred E., to Shell Oil Company. Removal of elemental sulfur contaminants from petroleum oils. 3,489,677, 1-13-70, Cl. 208-236.

Thompson, William H.; and Young, Eldred E., to Shell Oil Company. Removal of elemental sulfur from petroleum oil contaminated with sulfur. 3,501,397, 3-17-70, Cl. 208-236.

Thompson, William H.; and Young, Eldred E., to Shell Oil Company. Method for making sulfur-oil slurry for pipeline transportation. 3,532,389, 10-6-70, Cl. 302-66.

Thompson, William Ives, to Oxford Filing Supply Co., Inc. Modular office table or desk. 3,533,362, 10-13-70, Cl. 108-64.

Thompson, William S., to Elkhart Brass Manufacturing Co., Inc. Fire hose nozzle with automatic volume adjustment. 3,539,112, 11-10-70, Cl. 239-452.

Thompson, William S., to Elkhart Brass Manufacturing Company, Inc. Hose nozzle. 3,540,657, 11-17-70, Cl. 239-458.

Thompson-Hayward Chemical Company: *See—*
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Taylor, James L., 3,507,962.

Thomsen, Elmer R. Ice edger and line cutter. 3,504,434, 4-7-70, Cl. 30-170.

Thomsen, Erich: *See—*
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Thomson, Alan Russell: *See—*
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Thomson, Alan Russell; and Eveleigh, John William, to United Kingdom Atomic Energy Authority. Sample loading apparatus. 3,487,678, 1-6-70, Cl. 73-61.1

Thomson, Arthur R.: *See—*
Barish, Benjamin; and Thomson, Arthur R.,3,508,070.

Thomson, C. S. F.: *See—*
Jouffroy, Henri; and Desbois, Jean, 3,534,300.
Malnar, Leon; Meilleroux, Jean-Louis; and Brun, Henri, 3,534,250.

Thomson, Charles, to Solar Thompson Engineering Company Limited. Pulleys. 3,494,212, 2-10-70, Cl. 74-230.7

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Thomson, David J.: *See—*
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Thomson, David J., to Bell Telephone Laboratories, Incorporated. Switching system utilizing fluid logic device. 3,526,723, 9-1-70, Cl. 179-18.

Thomson Electric Welder Company, Inc.: *See—*
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Thomson, Elihu Craig, to Electronics Corporation of America. Circuit arrangement employing double integration for use in combustion supervision systems. 3,501,652, 3-17-70, Cl. 307-310.

Thomson, Elihu Craig: *See—*
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Thomson, George: *See—*
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Thomson, Howard F., to Audio Devices, Inc. Computer reel. 3,492,668, 1-27-70, Cl. 340-174.1

Thomson International Company, The: *See—*
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Thomson, John B.: *See—*
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Thomson, John E.; and Waples, George E., Jr., to Dow Chemical Company, The. Copolymers of ethylene. 3,520,861, 7-21-70, Cl. 260-88.1

Thomson, Kenneth W.: *See—*
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Thomson, Lois J.: *See—*
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Thomson, Lois J. (formerly Duggan J.): *See—*
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Thomson, Meredith C., to Stoelting Brothers Company. Stirring paddle assembly for process vat. 3,490,751, 1-20-70, Cl. 259-111.

Thomson, Millard R., to Bendix Corporation, The. Rotary distributor pump. 3,489,092, 1-13-70, Cl. 103-2.

Thomson, Millard R., to Bendix Corporation, The. Fuel injection valve device. 3,499,607, 3-10-70, Cl. 239-533.

Thomson, Millard R.: *See—*
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Thomson, Robert S., to Guyson Industrial Equipment Limited. Shot-blasting apparatus. 3,516,205, 6-23-70, Cl. 51-8.

Thomson, Ronald E., to Rex Chainbelt Inc. Laterally flexible conveyor. 3,520,398, 7-14-70, Cl. 198-195.

Thomson, Victor J. Unbaling machine. 3,513,522, 5-26-70, Cl. 29-200.

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Thomson-Medical-Telco: *See—*
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Thomspon, Earl A. Alloy, article of manufacture, and process. 3,502,057, 3-24-70, Cl. 123-90.

Thon, Arthur L.: *See—*
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Thon, Friedrich, to Siemens Aktiengesellschaft. Method and apparatus for focusing the objective lens of a particle beam microscope. 3,504,176, 3-31-70, Cl. 250-49.5

Thon, Gerald W.; and Thon, Arthur L. Method of identifying cuttings in connection with rooting. 3,541,728, 11-24-70, Cl. 47-58.

Thor, David L., to Container Corporation of America. Contoured cap. 3,527,374, 9-8-70, Cl. 220-42.

Thorburn, David H., to Powers Regulator Company, mesne. Fluidic cooling control. 3,526,101, 9-1-70, Cl. 62-223.

Thorburn, David H., to Powers Regulator Company. Fluidic sequentials switching. 3,550,606, 12-29-70, Cl. 137-81.5

Thordarson, Jon. Method for manufacturing film from thermoplastic resinous film-forming materials. 3,541,191, 11-17-70, Cl. 264-37.

Thoresen, Fredrik; and Notevarp, Helge, to International Standard Electric Corporation. Self-supporting cables with fine grained powder between support strands and extruded jacket and method of manufacture. 3,540,203, 11-17-70, Cl. 57-149.

Thoresen, Oscar. Walking toy. 3,512,300, 5-19-70, Cl. 46-103.

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Thorium Limited: *See—*
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Thorlin, Charles Fredrik Wilhelm, to AGA Aktiebolag. Distance measuring device having a common optical system for the transmitted and received beams. 3,551,050, 12-29-70, Cl. 356-4.

Thormahlen, Walter, to Elbatainer Kunststoff- und Verpackungs GmbH & Co. Polyethylene copolymer of ethylene and vinyl acetate-fatty acid or fatty acid salt compositions. 3,488,306, 1-6-70, Cl. 260-23.

Thorman, Baxter L., to Phillips Petroleum Company. Fluid control system for article handling equipment. 3,513,736, 5-26-70, Cl. 82-48.

Thorman, Baxter L.; and Mader, George E., Jr., to Phillips Petroleum Company. Apparatus for determining wall thickness of articles. 3,496,373, 2-17-70, Cl. 250-222.

Thorman, Baxter L.; and Zavasnik, Fred J., to Phillips Petroleum Company. Apparatus for extruding variable thickness materials. 3,530,536, 9-29-0, Cl. 18-14.

Thorn, Alvin E. Device for attaching to the military uniform all decoration. 3,550,221, 12-29-70, Cl. 24-90.

Thorn, Denis William; Littlebury, Keith Henry; and Davies, Eric, to Marconi Company Limited, The. Electro-mechanical resonators. 3,509,387, 4-28-70, Cl. 310-8.3

Thorn Electronics Limited: *See—*
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Thorn Electronics Limited: *See—*
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Isaacs, Anthony Leonard, 3,508,113.

Thorn, Ewald R., to Passavant-Werke. Waste water treatment plant. 3,545,620, 12-8-70, Cl. 210-208.

Thornander, Ingemar. Arrangement for the discharge of goods from a railbound car through its bottom. 3,487,963, 1-6-70, Cl. 214-63.

Thornber, John Charles Powell, to C.V.A. Limited. Liquid fuel pumping apparatus. 3,489,093, 1-13-70, Cl. 103-2.

Thornbery, John H.: *See—*
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Thornburg, Russell B., to Global Marine Inc. Anti-slack device for crane-operated buckets and the like. 3,547,276, 12-15-70, Cl. 212-1.

Thorndike, Edward M., to United States of America, Navy. Nephelometer. 3,498,721, 3-3-70, Cl. 356-103.

Thorne-Booth, George M., to Westinghouse Electric Corporation. Vehicle stopping control apparatus. 3,519,805, 7-7-70, Cl. 235-150.2

Thorne-Booth, George M., to Westinghouse Electric Corporation. Signaling system for determining the presence of a train vehicle. 3,526,378, 9-1-70, Cl. 246-34.

Thorne-Booth, George M., to Westinghouse Electric Corporation. Railway track signalling system. 3,532,877, 10-6-70, Cl. 246-63.

Thorne, Edward P. Equalizer device. 3,529,306, 9-22-70, Cl. 2-3.

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Thorne, Richard Stanley Wrey: *See—*
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Thorne, William D., to International Business Machines Corporation. Deposited actuator perforated media reader. 3,505,500, 4-7-70, Cl. 235-61.11

Thorner, Robert H. Automotive speed control system. 3,489,239, 1-13-70, Cl. 180-108.

Thorner, Robert H. Switch and delay mechanism. 3,521,211, 7-21-70, Cl. 337-301.

Thorner, Robert H. Automotive speed control system. 3,528,523, 9-15-70, Cl. 180-105.

Thornhill, Alan Richard: *See—*
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Thornley, Derek, to Lucas, Joseph, (Industries) Limited. Key operated ignition switches for road vehicles. 3,542,977, 11-24-70, Cl. 200-44.

Thornton, Arthur G. Universal utility lamp. 3,535,509, 10-20-70, Cl. 240-81.

Thornton, Austin M., Jr.: *See—*
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Thornton, Brice E.: *See—*
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Thornton, Dennis: *See—*
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Thornton, Duane V.: *See—*
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Thornton, Duane V.; and Holt, Jan D., to ACF Industries, Incorporated. Movable guide rail structure for railway flat cars. 3,543,693, 12-1-70, Cl. 105-368.

Thornton, James Coward: *See—*
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Ford, Ian Alastair Moncrieff; Cox, Bernard Carlton; and Thornton, James Coward,3,518,098.

Thornton, John J.; Cho, Boong Y.; and Adams, William L., to Industrial Nucleonics Corporation. Radiation temperature sensor. 3,489,008, 1-13-70, Cl. 73-355.

Thornton, Leonard, to Molins Machine Company Limited. Article handling apparatus. 3,517,477, 6-30-70, Cl. 53-53.

Thornton Products Company: *See—*
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Thornton, Richard C. Football game with superimposed cards. 3,547,441, 12-15-70, Cl. 273-94.

Thornton, Stuart R. Railroad switch throwing mechanism. 3,488,490, 1-6-70, Cl. 246-415.

Thornton, William E. Light beam ocilloscope having substantial persistence. 3,514,699, 5-26-70, Cl. 324-97.

Thornton, William H. B. Electrically operated kettles. 3,539,774, 11-10-70, Cl. 219-442.

Thornwall, Joseph C. Pulse-type magnetic core memory element circuit with blocking oscillator feedback. 3,501,752, 3-17-70, Cl. 340-174.

Thornwall, Joseph C., to United States of America, National Aeronautics and Space Administration. Stepping motor control circuit. 3,532,948, 10-6-70, Cl. 318-138.

Thorp, Norman: *See—*
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Thorpe Arc-Flame Associates, Inc.: *See—*
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Thorpe, Donald H., to Hooker Chemical Corporation. Halogen-containing polymer compositions. 3,494,981, 2-10-70, Cl. 260-876.

Thorpe, Donald H., to Hooker Chemical Corporation. Halogen-containing polymer compositions. 3,494,984, 2-10-70, Cl. 260-879.

Thorpe, Donald H.; and Witschard, Gilbert, to Hooker Chemical Corporation. Polymer recovery and purification process. 3,501,449, 3-17-70, Cl. 260-94.7

Thorpe, Merle L., to Thorpe Arc-Flame Associates, Inc. Method for cleaning road pavement. 3,490,066, 1-13-70, Cl. 134-19.

Thorpe, Merle L., to Humphreys Corporation. Induction plasma generator with gas sheath forming chamber. 3,546,522, 12-8-70, Cl. 313-231.

Thorpe, Merle L.; and Harrington, Kent W., to Humphreys Corporation. Induction plasma generator having improved chamber structure and control. 3,530,334, 9-22-70, Cl. 315-111.

Thorpe, Merle L.; and Harrington, Kent W., to Humphreys Corporation. Induction plasma generator with high velocity sheath. 3,530,335, 9-22-70, Cl. 315-111.

Thorpe, Richard W.: *See—*
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Thorpe, Robert A., to International Business Machines Corporation. Tracking light pen. 3,505,666, 4-7-70, Cl. 340-324.

Thorsheim, Glayds I. Reflective safety band. 3,499,416, 3-10-70, Cl. 116-114.

Thorsheim, Joseph O., to Honeywell Inc. Fuel cell control. 3,525,641, 8-25-70, Cl. 136-86.

Thorsman, Oswald Willy. Cable clamp. 3,494,580, 2-10-70, Cl. 248-68.

Thorsteinsen, Thor Erik: *See—*
Larsson, Valter; and Thorsteinsen, Thor Erik,3,532,933.

Thostrup, Harry, to Elektriska Svetsningsaktiebolaget. Apparatus for gas-shielded metal-arc welding. 3,497,670, 2-24-70, Cl. 219-130.

Thrall Car Manufacturing Company: *See—*
Woodman, Howard C.; and Harter, Lynn J., 3,496,885.

Thrasher, Elbridge W., to Masonite Corporation. Self-cleaning saw guide. 3,489,189, 1-13-70, Cl. 143-160.

Thrasher, Elbridge W., to Masonite Corporation. Mounting for guided circular saws. 3,516,460, 6-23-70, Cl. 143-155.

Thrasher, Elbridge W., to Masonite Corporation. Saw guide apparatus. 3,516,461, 6-23-70, Cl. 143-160.

Thrasher, Elbridge W., to Masonic Corporation. Front opening edger with replaceable saw guides. 3,534,790, 10-20-70, Cl. 143-55.

Thrasher, Elbridge W., to Masonite Corporation. Saw guide mounting. 3,550,654, 12-29-70, Cl. 143-56.

Thrasher, George E., Jr.: *See—*
Bertva, John T.; and Thrasher, George E., Jr.,3,516,516.

Thrasher, Paul M.: *See—*
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Thrasher, Paul M.; and Roehr, Kuno M., to United States of America, Air Force. Apparatus for forming an all-lower sideband group signal output. 3,501,594, 3-17-70, Cl. 179-15.

Thrasher, Paul M.; and Ward, Richard J., to International Business Machines Corporation. Resonant transfer of energy between band-pass filters of unequal bandwidth. 3,520,998, 7-21-70, Cl. 179-15.

Thrasher, Wilbert E. Combination place mat and napkin. 3,521,746, 7-28-70, Cl. 206-47.

Threadgold, Ronald; and Pate, Orran Terence, to Automatic Telephone & Electric Company Limited. Data processing system utilizing stored instruction program. 3,518,632, 6-30-70, Cl. 340-172.5

Threadline Fastener Corporation: *See—*
Coyle, Jan R., 3,497,890.

Threshold Electric Research: *See—*
Schwartz, Edmund I., 3,488,605.

Thrifty-Lifty Inc.: *See—*
Stone, Guthrie B.; Herington, Roger A.; and Allen, Ronald K., 3,540,569.

Thring, Meredith W. Walking machine. 3,522,859, 8-4-70, Cl. 180-8.

Thrings Advanced Development Limited: *See—*
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Thrissel, Masson Scott, Engineering Limited: *See—*
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Throckmorton, Morford C. Trialkyl tin fluorides as catalyst additives in butadiene polymerization. 3,528,953, 9-15-70, Cl. 260-82.1

Throckmorton, Morford C., to Goodyear Tire & Rubber Company, The. Production of cis-1,4-polydines by means of a ternary catalyst system. 3,542,751, 11-24-70, Cl. 260-94.3

Throckmorton, Morford C.; and Saltman, William M., to Goodyear Tire & Rubber Company, The. Method of producing polybutadiene. 3,528,957, 9-15-70, Cl. 260-94.3

Throckmorton, Morford C.; and Saltman, William M., to Goodyear Tire & Rubber Company, The. Process for the polymerization of diolefins with a catalyst comprising alkylaluminum compounds, group III-B organo metal compounds and organoaluminum fluoride compounds. 3,541,063, 11-17-70, Cl. 260-82.1

Thron, John E.; Blume, Michael H.; Reed, David L.; Stein, Howard; and Wiley, John O., to Honeywell Inc. Data processing apparatus. 3,522,589, 8-4-70, Cl. 340-172.5

Throne, James M.: *See—*
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Thronton, Thomas: *See—*
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Throop, Gilbert D., to Westinghouse Electric Corporation. Tap changer with voltage and current responsive protective means. 3,515,980, 6-2-70, Cl. 323-43.5

Throop, Gilbert D.: *See—*
Specht, Theodore R.; Throop, Gilbert D.; and Bruce, Robert V.,3,546,572.

Throop, James A.: *See—*
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Throop, Lewis J.; and Cross, Alexander D., to Syntex Corporation. Electrolytic reduction of cyclopentanophenanthrene derivatives. 3,506,549, 4-14-70, Cl. 204-75.

Thubeauville, Heinz: *See—*
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Thuesen, Niel C. Means for controlling valve-open time of internal combustion engines. 3,518,976, 7-7-70, Cl. 123-90.

Thuesen, Niel C.; and Thuesen, Ralph N. Means for shutting off fuel flow in the idle system of carburetors. 3,502,307, 3-24-70, Cl. 261-52.

Thuesen, Ralph N.: *See—*
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Thuillier, Germaine, born Nachmias: *See—*
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Thuillier, Jean Louis Edouard. Apparatus for removing dust from gases. 3,526,082, 9-1-70, Cl. 55-235.

Thuillier, Jean-Eugene: *See—*
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Thuillier, Yvonne, to Rolland, Albert, S.A. Lipotropic medicine having as a base betaine acetyl aspartate and method for treatment therewith. 3,527,868, 9-8-70, Cl. 424-316.

Thuis, Robert Carel: *See—*
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Thulin, Lars Gustav, to Aktiebolaget Gotaverken. Bow thruster. 3,515,088, 6-2-70, Cl. 114-148.

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Thuma, Volney P.: *See—*
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Thumim, Arnold D.: *See—*
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Thumim, Carl, to Miehle-Goss-Dexter, Incorporated. Magnetic tape reversing system. 3,527,128, 9-8-70, Cl. 83-71.

Thumim, Carl; and Des Jardins, James, to Miehle-Goss-Dexter, Incorporated. Continuous one-station three-knife book trimmer. 3,528,332, 9-15-70, Cl. 83-214.

Thumim, Carl; Herman, Nicholas; and Des Jardin, James, to Miehle-Goss-Dexter, Incorporated. Input feed mechanism for trimmer. 3,530,975, 9-29-70, Cl. 198-222.

Thumim, Carl; Herman, Nicholas; and Des Jardins, James, to Miehle-Goss-Dexter, Incorporated. Depositing and stacking mechanism for continuous three-knife trimmer. 3,510,123, 5-5-70, Cl. 271-4.

Thumm, Hans: *See—*
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Thumm, Wilhelm: *See—*
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Thummel, Helmut, to Heinrich Benzing, Firma. Flat electrical connecting element. 3,527,933, 9-8-70, Cl. 240-11.2

Thunberg, Jon C.: *See—*
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Thunderline Corporation: *See—*
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Thurber, Guy Norman. Wrench with pivotable handle. 3,526,160, 9-1-70, Cl. 81-177.8

Thurman & Younking, Inc.: *See—*
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Thurmond, Allen M. Wild life feeder. 3,515,098, 6-2-70, Cl. 119-51.

Thurnell, Duncan Philip. Apparatus for synthesizing sine waves. 3,512,092, 5-12-70, Cl. 328-14.

Thurnell, Duncan P. Variable gain amplifier circuits. 3,500,223, 3-10-70, Cl. 330-30.

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Thurner, Elmar, to Hilti Aktiengesellschaft. Anchoring element construction. 3,491,648, 1-27-70, Cl. 85-10.

Thurner, Elmar, to Hilti Aktiengesellschaft. Anchorage nail. 3,498,172, 3-3-70, Cl. 85-28.

Thurner, Elmar, to Hilti Aktiengesellschaft. Anchoring elements. 3,505,920, 4-14-70, Cl. 85-10.

Thurner, Elmar; and Rangger, Herbert, to Hilti Aktiengesellschaft. Anchoring element guide construction and driving device therefor. 3,491,933, 1-27-70, Cl. 227-139.
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Thurner, Richard: *See—*
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Thurow, Raymond C.: *See—*
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Thurston, Edward G., to Bell & Howell Company. Video display of line sequential color signal. 3,542,947, 11-24-70, Cl. 178-5.4

Thurston, Edward M. Loading means for chair lift. 3,548,753, 12-22-70, Cl. 104-123.

Thurston, Franklin J.; and Nazali, Joseph M., to Kaman Corporation. Apparatus for packaging confectionery articles in individual receptacles and grouping the articles for transfer into an upwardly open box or the like. 3,499,262, 3-10-70, Cl. 53-124.

Thurston, Helen E.: *See—*
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Thurston, Herbert O., deceased (by Thurston, Helen E.; executrix). Anti-chafing leg guard. 3,516,180, 6-23-70, Cl. 36-2.5

Thurston, James R.; Roberts, Henry J.; Bolieau, Christopher W.; and McCullough, Edward E., to Thiokol Chemical Corporation. Igniter. 3,508,853, 4-28-70, Cl. 431-270.

Thurston, Raymond L., to Microdot, Inc. Drill screw with swaging threads. 3,507,183, 4-21-70, Cl. 85-47.

Thurston, Raymond, to Microdot, Inc. Thread swaging screw or bolt. 3,492,908, 2-3-70, Cl. 85-47.

Thurston, Richard E.; and Schamp, Robert M., to Rolen Diversified Investors, Inc. Sound transducer with wall mounted diaphragm. 3,524,027, 8-11-70, Cl. 179-115.5

Thurston, Robert S., to Kelek Company, The, mesne. Ground fault detection for power distribution system. 3,492,533, 1-27-70, Cl. 317-18.

Thurstone, Fredrick L., to American Optical Corporation. Acoustial imaging system. 3,541,848, 11-24-70, Cl. 73-67.5

Thuse, Erik, to FMC Corporation. Gate valve mechanism for control of plural passages. 3,494,377, 2-10-70, Cl. 137-625.18

Thwaites, Peter, to Courtaulds Limited. Yarn winding machines. 3,494,562, 2-10-70, Cl. 242-26.1

Thwing-Albert Instrument Company: *See—*
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Thyberg, Victor A.: *See—*
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Thylefors, Henric Wilhelm, to Alfa-Laval AB. Centrifugal separator. 3,494,544, 2-10-70, Cl. 233-19.

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Ti-Pe Elmeko: *See—*
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Tibbals, Charles E. Wire cutting chisel device and method. 3,491,424, 1-27-70, Cl. 29-200.

Tibbals, Edward Camp, Jr.; Miosek, Robert J.; and Stechman, John M., to Dawson, Alexander, Inc., mesne. Method and apparatus for subterranean irrigation. 3,518,831, 7-7-70, Cl. 61-13.

Tibbet, James W. Armor sheath stripper for electrical conductors. 3,543,614, 12-1-70, Cl. 81-9.5

Tibbetts, Bernard L. Apparatus for burtoning cargo. 3,528,561, 9-15-70, Cl. 212-3.

Tibbetts, George C., to Tibbetts Industries, Inc. Magnetic translating device. 3,515,818, 6-2-70, Cl. 179-114.

Tibbetts, George C., to Tibbetts Industries, Inc. Magnetic translating device with armature flux adjustment means. 3,531,745, 9-29-70, Cl. 335-231.

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Tibbetts, George C., 3,531,745.

Tibbetts, Raymond E.; and Wilczynski, Janusz S., to International Business Machines Corporation. Large field reduction lens system. 3,540,800, 11-17-70, Cl. 350-214.

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Tibbott, David W., to Ingersoll-Rand Company. Automatic throttle torque-responsive power tool. 3,498,389, 3-3-70, Cl. 173-12.

Tibbott, David W., to Ingersoll-Rand Company. Automatic throttle torque-responsive power tool. 3,512,590, 5-19-70, Cl. 173-12.

Tibbs, Christopher Evan Mundell, to Dysona Industries Limited. Dielectric heating apparatus. 3,502,839, 3-24-70, Cl. 219-10.55

Tibbs, Geoffrey T., to FEB (Great Britian) Limited. Storage and handling of chemical substances. 3,519,250, 7-7-70, Cl. 259-72.

Tibbs, Oscar F., to Buzick, John W. Electronic ignition system. 3,502,060, 3-24-70, Cl. 123-148.

Tibbs, Oscar F., to Andrews, Manufacturing Company. Breakerless oscillator ignition system. 3,504,231, 3-31-70, Cl. 315-212.

Tibbs, Robert C. Infant feeding apparatus. 3,532,242, 10-6-70, Cl. 215-11.

Tiberi, John. Means for measuring the amount of material in a storage bin. 3,492,730, 2-3-70, Cl. 33-126.

Tibolla, Julius F.: *See—*
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Tichauer, Ernest J.; Hughes, Stanley G.; and Coolen, Lambertus, to United States of America, Air Force. Apparatus for dissemination of materials by implosion. 3,505,957, 4-14-70, Cl. 102-6.

Tichelaar, Gerrit Willem: *See—*
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Tichy, Oscar A. W.; and Lauck, John A., to Whirlpool Corporation. Automatic water level control. 3,497,884, 3-3-70, Cl. 8-158.

Tickell, Edward B., to Numak, Inc., mesne. Depth controllers for seismic streamer cables. 3,531,762, 9-29-70, Cl. 340-7.

Tickell, Edward B.; and Clift, Gilbert B., Jr., to Numak, Inc., mesne. Depth controllers for seismic streamer cables. 3,531,761, 9-29-70, Cl. 340-7.

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Ticknor, Sergei L., to Jerrold Electronics Corporation, mesne. Solid state motor driven antenna rotator control circuit. 3,527,993, 9-8-70, Cl. 318-674.

Ticknor, Winton A., to Owens-Corning Fiberglas Corporation. Coaxial heat exchange apparatus with spacers. 3,547,202, 12-15-70, Cl. 165-81.

Tideland Signal Corporation: *See—*
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McKee, Fount E., 3,497,820.

Tideswell, Richard B.: *See—*
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Tidwell, Clavin M., to Petro-Tex Chemical Corporation. Isobutene separation with a molecular sieve. 3,531,539. 9-29-70, Cl. 260-677.

Tidwell, James O., to E. P. Research, Inc. Roller paint bucket. 3,493,988, 2-10-70, Cl. 15-257.06

Tidwell, Paul J. Traveling scaffold. 3,524,520, 8-18-70, Cl. 182-36.

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Tiefenthal, Josef Maria Herbert: *See—*
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Tiemann, Gerhard: *See—*
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Tiemann, Jerome J., to General Electric Company. Magnetostrictive delay line pulse sequence generator. 3,517,320, 6-23-70, Cl. 328-56.

Tiemann, Jerome J., to General Electric Company. Dual charging of a capacitor to produce a constant A.C. voltage. 3,522,522, 8-4-70, Cl. 323-22.

Tiemann, Jerome J., to General Electric Company. Noninverting optical reflecting device. 3,532,417, 10-6-70, Cl. 350-296.

Tiemann, Jerome J., to General Electric Company. Magnetic transducer head with shunt magnetic path. 3,534,345, 10-13-70, Cl. 340-174.1

Tiemes, Karel Martin: *See—*
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Tiemstra, Peter J.: *See—*
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Tiemstra, Peter John, to Swift & Company. Gelatin extraction utilizing low pressure steam in an atmosphere of reduced pressure. 3,542,755, 11-24-70, Cl. 260-118.

Tieri, Caesar W., Jr.: *See—*
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Tierman, Melvin; and Wesolowski, William E., to Sprague Electric Company. Bi-metal thin film component and beam-lead therefor. 3,523,221, 8-4-70, Cl. 317-230.

Tierney, Bernard C., to Leisure Industries. Motorized surfboard. 3,536,025, 10-27-70, Cl. 115-70.

Tierney, John Henry, Jr.: *See—*
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Tierney, Myrel T.: *See—*
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Tierney, Robert R.: *See—*
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Tierney, William S.: *See—*
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Tiers, George Van Dyke, to Minnesota Mining and Manufacturing Company. Rubbery polyperfluoroalkylene oxides and process therefor. 3,515,701, 6-2-70, Cl. 260-78.4

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Tiffany, Earl H., Jr.: *See—*
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Tiffany, Floyd L., to Fisher Governor Company. Capacitance-measuring techniques. 3,543,046, 11-24-70, Cl. 307-118.

Tiffin, James R.; and Weber, Walter O., to Haskon, Inc., mesne. Process for forming foamed containers. 3,531,555, 9-29-70, Cl. 264-92.

Tift, Leo R., to Hare, James M. Truck underbody scraper for highway maintenance vehicles. 3,517,753, 6-30-70, Cl. 172-795.

Tiger, Emil: *See—*
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Tignanelli, Gerald. Lint catcher. 3,487,624, 1-6-70, Cl. 55-482.

Tigner, Ronald G.: *See—*
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Davis, Ralph A.; and Tigner, Ronald G.,3,505,416.

Tigner, Ruben A., to Dow Chemical Company, The. Opening device. 3,550,764, 12-29-70, Cl. 206-46.

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Mounts, Lewis S.; and Tigner, Ruben A.,3,550,808.

Tijburg, Rudolf Paulus; and de Nobel, Dirk, to U.S. Philips Corporation, mesne compound and doped tin contact. Microwave semiconductor oscillator employing III-V. 3,544,859, 12-1-70, Cl. 317-235.

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Tikashima, Minoru: *See—*
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Tilak, Manohar A.; and Hollinden, Charles S., to Lilly, Eli, and Company. Novel amino acid protecting groups. 3,518,240, 6-30-70, Cl. 260-88.2

Tilbury, Roy S.; and Kramer, Henry H., to Union Carbide Corporation. Production of a pharmaceutically acceptable saline solution containing a radioactive gas and use thereof. 3,509,919, 5-5-70, Cl. 141-11.

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Tiley, John W., to Philco-Ford Corporation, mesne. Photolithographic deposition of phosphors on faceplate of CRT using spraying of photosensitive PVA-phosphor suspension in plural layers. 3,515,553, 6-2-70, Cl. 96-36.1

Tiley, William A. Game apparatus including selectively contourable playing surface. 3,534,961, 10-20-70, Cl. 273-87.

Tilghman Wheelabrator Limited: *See—*
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Till, Arthur. Cleaning machines for containers. 3,534,749, 10-20-70, Cl. 134-152.

Till, Edwin A., Jr.: *See—*
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Till, James Peter, to AMP Incorporated. Solid state switch circuits. 3,493,783, 2-3-70, Cl. 207-252.

Tillack, Robert H.; and Sykora, Allan J., to Stackpole Carbon Company. Rotary switch with indexing mechanism. 3,499,133, 3-3-70, Cl. 200-166.

Tillander, Magnus Emamuel; Persson, Ake Berhard; and Johansson, Leif A T, to Ti-Pe Elmeko. Discontinuous baking oven. 3,529,554, 9-22-70, Cl. 107-55.

Tillays, Jacques; and Dubois, Jean Claude, to U.S. Philips Corporation, mesne. Electro-luminescent semiconductor devices. 3,508,100, 4-21-70, Cl. 313-108.

Tillem, Harold B. Product for and method of testing blood for the presence of hemoglobin S. 3,492,095, 1-27-70, Cl. 23-230.

Tillett, Stephen S. Optical structures. 3,491,237, 1-20-70, Cl. 290-71.

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Tillman, Alfred: *See—*
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Tillman, Cassius L., III. Tubular seal. 3,501,158, 3-17-70, Cl. 277-171.

Tillman, Cassius L., III. Pipe joint seal. 3,507,506, 4-21-70, Cl. 277-225.

Tillman, Cassius L., III. Gate valve. 3,533,598, 10-13-70, Cl. 251-327.

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Tillman, Robert M., to Burroughs Corporation. Magnetic memory arrangement having improved storage and readout capability. 3,521,249, 7-21-70, Cl. 340-174.

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Tillmann, Hermann. Device for dispensing medicaments such as contraceptives to women. 3,492,993, 2-3-70, Cl. 128-261.

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Tobey, Harry, to Boeing Company, The. Torsion-tension coupling. 3,520,637, 7-14-, Cl. 416-135.

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Toby, Dennis E., to Addressograph-Multigraph Corporation. Sheet feeding apparatus. 3,525,517, 8-25-70, Cl. 271-36.

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Tocker, Stanley, to Du Pont de Nemours, E. I., and Company. Foamable resin composition and process for preparing foamed resins. 3,547,839, 12-15-70, Cl. 260-2.5

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Toda, Haruhiko: *See—*
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Todd, William E., to Buschman, E. W., Company, Inc., The. Charging mechanism for block handling apparatus. 3,504,809, 4-7-70, Cl. 214-26.

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Tolles, Walter E.; Speh, Karl C.; and Mencher, Alan G., to United States of America, Navy, mesne. Means for producing range and angle deception of automatic tracking radar. 3,504,366, 3-31-70, Cl. 343-6.8
Tolley, Calvert B. Machine for preparing a hard shell crab for meat removal. 3,495,293, 2-17-70, Cl. 17-71.
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Tomalia, Donald A., to Dow Chemical Company, The. N,N'-diacyl-N,N'-bis(haloethyl)oxamides. 3,511,876, 5-12-70, Cl. 260-482.
Tomalia, Donald A.; and Ham, George E., to Dow Chemical Company, The. Aziridinyl oxazolines and thiazolines. 3,491,107, 1-20-70, Cl. 260-306.7
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Tomlinson, John L., to Case, J. I., Company. Neutral control starting mechanism. 3,534,637, 10-20-70, Cl. 74-850.

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Tompkins, Douglas L., to Baxter Laboratories, Inc. Blood oxygenator. 3,502,440, 3-24-70, Cl. 23-258.5

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Tomshany, Paul E., to Ford Motor Company. Process for separating sheets of rigid material. 3,491,634, 1-27-70, Cl. 83-27.

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Tong, Shih Y., to Bell Telephone Laboratories, Incorporated. Channel monitor for error control. 3,496,549, 2-17-70, Cl. 340-172.5

Tong, Shih Y., to Bell Telephone Laboratories, Incorporated. Single character error and burst-error correcting systems utilizing convolution codes. 3,508,197, 4-21-70, Cl. 340-146.1

Tong, Shih Y., to Bell Telephone Laboratories, Incorporated. Random and burst error-correcting arrangement. 3,544,963, 12-1-70, Cl. 340-146.1

Tong, Shih Y., to Bell Telephone Laboratories, Incorporated. Automatic synchronization recovery techniques for nonbinary cyclic codes. 3,550,082, 12-22-70, Cl. 340-146.1

Tongurian, Grigore, to British Automotive Industries, Pty. Limited. Machine for reconditioning and setting-up clutches of motor vehicles and the like. 3,521,346, 7-21-70, Cl. 29-200.

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Tonkin, Kenneth J.; and Jeschke, Richard R., to Dick, A. B., Company. Etch applicator for offset duplicating machine. 3,508,490, 4-28-70, Cl. 101-147.

Tonkin, Kenneth J.; Swanson, John L.; and Jeschke, Richard R., to Dick, A. B., Company. Offset duplicating machine with combined control mechanism for etch applicator and master loading mechanism. 3,496,864, 2-24-70, Cl. 101-142.

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Tonnies, Frank N.: *See—*
Douglas, Robert Pohle, Jr.; and Tonnies, Frank N.,3,501,805.

Tooby, George. Method and apparatus for dehydrating materials. 3,487,554, 1-6-70, Cl. 34-5.

Tood, Wallace M.,: *See—*
Moore, Howard W., 3,522,960.

Toohey, John I. Corrinoid compounds containing no metal. 3,505,311, 4-7-70, Cl. 260-211.5

Tooke, James W., to Phillips Petroleum Company. Mono-substituted hydrocarbon fuel additives. 3,523,769, 8-11-70, Cl. 44-72.

Tooker, Walter C., to TRW Inc. Flexural pivot having limited bending stresses imparted to flexure member. 3,544,175, 12-1-70, Cl. 308-2.

Tool Research & Engineering Corporation: *See—*
Nelson, Gladwyn D.; and Pluegar, Lowell B., 3,516,271.

Toole, Laurence John, to General Cable Corporation. Pressure equalizer for vulcanizable elastomer for three layer extrusion. 3,538,207, 11-3-70, Cl. 264-89.

Tooley, Jack Raymond: *See—*
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Toone, Dean W. Roller skate construction. 3,501,162, 3-17-70, Cl. 280-11.23

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Toossi, Mostafa, to Mobil Oil Corporation. Combination deep water storage tank and drilling and production platform. 3,488,967, 1-13-70, Cl. 61-46.5

Toothman, Donald C.: *See—*
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Toothman, Lawrence R.: *See—*
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Tooze, Michael John: *See—*
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Landfried, Bert W.; Bassett, Harold J.; and Moneymaker, John R., 3,515,562.
Landfried, Bert W.; and Moneymaker, John R., 3,527,644.

Topas, Benjamin, to International Rectifier Corporation. High voltage semiconductor device. 3,493,442, 2-3-70, Cl. 148-175.

Topas, Benjamin, to International Rectifier Corporation. High voltage semiconductor device. 3,519,506, 7-7-70, Cl. 156-11.

Topfer, Karl Heinz; Schrepel, Walter Dieter; Schwarz, Karl August Arnulf; and Lang, Herbert Gotz Dietmar, to Deutsche Akademie der Wissenschaften Zu Berlin. Pneumatic switch. 3,495,611, 2-17-70, Cl. 137-112.

Topfer, Morton L; and Quinn, Richard E., to RCA Corporation. Stabilization of thin film transistors. 3,520,051, 7-14-70, Cl. 29-571.

Topham, Arthur: *See—*
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Toplay Products, Incorporated: *See—*
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Topol, George J., to Bowser, Inc. Turbidity meter having calibrating light source. 3,510,666, 5-5-70, Cl. 250-218.

Topol, George J., to Bowser, Inc. Radiation sensitive device for detecting interface between fluids. 3,544,798, 12-1-70, Cl. 250-218.

Topol, George J.; and Carr, Larry R., to Bowser, Inc. Sludge level detector using an infrared source and detector. 3,551,670, 12-29-70, Cl. 250-43.5

Topor, Frank. Saddle mounting arrangement. 3,522,957, 8-4-70, Cl. 280-283.

Topp, Wilhelm, deceased (by Kaulfuss, Rudi; executor), to Bernd Kretzschmer. Cowls for air vent pipes. 3,509,811, 5-5-70, Cl. 98-78.

Toppan Printing Company Limited: *See—*
Takano, Tetsuya; and Shibata, Takao, 3,503,316.

Topper Corporation: *See—*
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Bonanno, Joseph L., 3,531,119.
Tepper, Sidney; Boydman, Hyman P.; and Bonanno, Joseph L., 3,514,108.

Topping, Frederick V. Color converter for black and white television sets. 3,535,435, 10-20-70, Cl. 178-5.4

Toray Industries Inc.: *See—*
Okada, Hiroshi; Tamai, Isamu; Osakada, Atsushi; Oyama, Minoru; Yamada, Masaaki; and Ohkubo, Shunji, 3,542,702.
Susami, Kozo; Tabata, Masaaki; Edagawa, Hiroshi; and Shinkai, Kunio, 3,540,201.
Tabata, Masaaki; Susuami, Kozo; Edagawa, Hiroshi; and Shinkai, Kunio, 3,523,300.
Tanaka, Tomio; Yamada, Minoru; and Matsubara, Toshimoto, 3,540,204.
Uchida, Mitsuo; Nakamura, Yasumasa; Hamachi, Toshio; Ando, Akio; Yamazaki, Toru; Terao, Koichi; and Osumi, Shinzo, 3,548,638.
Yokouchi, Rei; Takehisa, Yoshio; Yuge, Ko.; and Mitani, Naoyuki, 3,524,730.

Torban, Alexandr Isaakovich; Kaushansky, Alexandr Stepanovich; Butkevich, Vladimir Alexandrovich; and Grigoriev, Alexey Nikolaevich. Apparatus for delivering ingots from a vertical type continuous casting installation. 3,548,920, 12-22-70, Cl. 164-282.

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Torbett, Eugene E. Golf practice device. 3,490,769, 1-20-70, Cl. 273-181.

Torbett, Richard L., to Alsco, Inc. Corner post for siding. 3,525,188, 8-25-70, Cl. 52-288.

Torca, Inc.: *See—*
Cassel, Thomas R., 3,508,770.

Torch, John; and Whited, Edgar G. Knockdown scaffolding. 3,490,559, 1-20-70, Cl. 182-194.

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Tordella, John P., to Du Pont de Nemours, E. I., and Company. Oriented blends of ethylene polymers and petroleum waxes and process for preparing same. 3,502,764, 3-24-70, Cl. 264-210.

Tordoff, Ledger J., to Minnesota Mining and Manufacturing Company. Ground strap assembly. 3,537,060, 10-27-70, Cl. 339-14.

Torell, Clark R. Automatic animal catching gate. 3,538,890, 11-10-70, Cl. 119-98.

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Torfeh, Mark A.; Rakoczi, Laszlo L.; McLagan, Angus; and Barlow, Jesse P., to General Electric Company. Apparatus providing alterable symbolic memory addressing in a multiprogrammed data processing system. 3,505,647, 4-7-70, Cl. 340-172.5
Torfeh, Mark A.: *See—*
Aranyi, Steven F.; Barlow, Jesse P.; Barton, Richard; Rakoczi, Laszlo L.; and Torfeh, Mark A.,3,538,502.
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Tori, Tatsumi; and Kondo, Toshiyuki, to Aisin Seiki Kabushiki Kaisha. Brake lining wear warning device. 3,543,714, 12-1-70, Cl. 116-67.
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Torick, Emil; and Allen, Richard G., to Columbia Broadcasting System, Inc. Automatic gain control system with noise variable threshold. 3,496,481, 2-17-70, Cl. 330-134.
Torick, Emil; and Allen, Richard G., to Columbia Broadcasting System, Inc. Method and apparatus for frequency sensitive amplitude limiting. 3,529,244, 9-15-70, Cl. 325-147.
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Torii, Tatuki: *See—*
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Torin Corporation: *See—*
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Toritani, Yoshifumi; Hoshihara, Manabu; and Morioka, Tamotsu. Strip electrode of type for submerged arc welding. 3,514,572, 5-26-70, Cl. 219-145.
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Torlay, Dwight L., to United States Steel Corporation. Apparatus for aligning shafts and the like. 3,525,158, 8-25-70, Cl. 33-180.
Tornay, Edmund G., to Conch International Methane Limited. Self-supporting cargo tank with partially perforated sandwich panels. 3,536,226, 10-27-70, Cl. 220-10.
Tornberg, Edward W., to TRW Inc. Current sensing circuit for filtered static inverters. 3,522,514, 8-4-70, Cl. 321-14.
Tornheim, Harold. Truck. 3,522,894, 8-4-70, Cl. 214-501.
Tornmarck, Sven Ivan Arvid: *See—*
Holm, Bengt Lennart; and Tornmarck, Sven Ivan Arvid,3,519,310.
Tornqvist, Erik, to Esso Research and Engineering Company. Tetrahalides of transition metals reduced with activated aluminum powder. 3,531,420, 9-29-70, Cl. 252-442.
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Torok, Ernest J.: *See—*
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Torok, Gabor P., to Bell Telephone Laboratories, Incorporated. Visual telephone subscriber alignment apparatus. 3,532,815, 10-6-70, Cl. 178-7.85
Torok, Julius Joseph, to Owens-Illinois, Inc. Method for metalizing a glass surface. 3,508,894, 4-28-70, Cl. 65-30.
Torok, Viimos, to Allmanna Svenska Elektriska Aktiebolaget. Regulating system. 3,525,032, 8-18-70, Cl. 321-18.
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Torok, Vilmos; and Hansson, Curt, to Allmanna Svenska Elektriska Aktiebolaget. Closed control system having means responsive to the amplitude of self-oscillations to modify one or more parameters of the system. 3,551,772, 12-29-70, Cl. 318-308.
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Torongo, Albert H., Jr.; and Heston, Russell G., Jr., to Deskey, Donald, Associates, Inc. Plateless printing process. 3,507,674, 4-21-70, Cl. 117-10.
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Torque Controls, Inc.: *See—*
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Torr Laboratories, Inc.: *See—*
De Lucia, Victor E., 3,541,484.
DeLucia, Victor E., 3,549,931.
Torr, Ralph Percival, to Andre Rubber Company Limited. Rubber springs. 3,504,900, 4-7-70, Cl. 267-1.
Torrance, Gordon A., to Webb, Jervis B., Company. Accumulating transfer conveyor. 3,512,629, 5-19-70, Cl. 198-221.
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Torre, Jean. Differential pressure sensitive switch. 3,527,909, 9-8-70, Cl. 200-83.
Torrellas, Rafael E. Eccentrically loaded waler rod and locking device. 3,523,671, 8-11-70, Cl. 249-210.
Torrence, James A., to Motorola, Inc. Process for producing a color cathode ray tube having a prestressed faceplate panel. 3,493,356, 2-3-70, Cl. 65-58.
Torres, Jorge, to Purolator, Inc. Flexible coupling for ducts. 3,540,758, 11-17-70, Cl. 285-233.
Torres, Jose C. Bubble film oxygenator. 3,547,591, 12-15-70, Cl. 23-258.5
Torres, Julian. Paper picker. 3,526,424, 9-1-70, Cl. 294-24.
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Torretta, Roberto, to Caster Tecnologie Speciali S.p.A. Delivering cap for aerosol dispensers. 3,503,559, 3-31-70, Cl. 239-573.
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Cowles, John H.; and Massey, Roger G., 3,517,965.
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Elmore, J. Russell; and Cowles, John H., 3,537,554.
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Torsellini, Renato; and Comoli, Fermo, to Chatillon Societa Anonima Italiana per le Fibre Tessili Artificiali S.p.A. Device for winding yarn and thread. 3,489,360, 1-13-70, Cl. 242-43.
Torti, Emanuel. Trench shoring apparatus. 3,543,522, 12-1-70, Cl. 61-41.
Torti, Luigi; and Bertelli, Guido, to Montecatini Edison S.p.A. Method of bonding olefin elastomer to textile fiber and bonded product. 3,533,831, 10-13-70, Cl. 117-76.
Torti, Luigi; and Marcello, Stefano, to Montecatini Edison S.p.A. Method of bonding diene rubber to ethylene/propylene or ethylene/propylene/diene elastomer. 3,522,831, 8-4-70, Cl. 152-330.

Torti, Luigi; Marcello, Stefano; and Bertelli, Guido, to Montecatini Edison S.p.A. Method for obtaining adhesion between olefin copolymers or terpolymers and natural or synthetic rubbers. 3,514,357, 5-26-70, Cl. 156-306.
Torti, Luigi; Marcello, Stefano; and Bertelli, Guido, to Montecatini Edison S.p.A. Process of adhesion between different elastomers. 3,528,473, 9-15-70, Cl. 152-330.
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Tosan, Roland Jean Dominique; Arsac, Aime Joseph; Domenech, Fidele; Bourguignon, Pierre Jules Emile; and Kienzle, Jean Andre Paul, to Ugine Kuhlmann, mesne. Dyestuffs containing 2-chlorothiazole-and benzthiazole-sulfonyl groups. 3,511,826, 5-12-70, Cl. 260-146.
Toscano, Esteban J., to Hughes Aircraft Company. Reversible electronic digital counter. 3,500,022, 3-10-70, Cl. 235-92.
Tosches, Anthony J., to North American Rockwell Corporation. Filling selective device for shuttleless looms. 3,511,284, 5-12-70, Cl. 139-122.
Toselli, Mario. Building structure. 3,524,287, 8-18-70, Cl. 52-73.
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Tosler, Arthur Robert David. Car buffer. 3,514,088, 5-26-70, Cl. 267-1.
Tossman, Barry E.: *See—*
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Toth, Alexander. Dental gum stimulator. 3,516,402, 6-23-70, Cl. 128-66.
Toth, Ernest. Cigarette-simulating inhaler. 3,521,643, 7-28-70, Cl. 128-201.
Toth, Ferenc. Multi-stage tangential turbine. 3,522,703, 8-4-70, Cl. 60-39.18
Toth, Imre: *See—*
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Toth, Istvan; and Frey, Walter, to Sandoz Ltd., a/k/a Sandoz A.G. Process for the production of brominated phthalocyanines. 3,515,729, 6-2-70, Cl. 260-314.5
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Toldy, Lajos; Toth, Istvan; Borsi, Jozsef; Fekete, Marton; Szilagyi, Katalin, nee Farago; and Bitter, Istvan,3,496,183.
Toth, J. Roger; and Gilliland, Michael L., to Ametek, Inc. Circuitry for brushless direct current motor. 3,497,781, 2-24-70, Cl. 318-138.
Toth, J. Roger; and Gilliland, Michael L., to Ametek, Inc. Brushless direct current motor. 3,497,783, 2-24-70, Cl. 318-138.
Toth, J. Roger; and Gilliland, Michael L., to Ametek, Inc. Brushless direct current motor circuitry and like circuitry with protection for non-commutating conditions. 3,497,784, 2-24-70, Cl. 318-138.
Toth, John A.: *See—*
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Toth, Louis, to Anchor Enterprises Corporation. Structural element with thermal barrier means. 3,517,472, 6-30-70, Cl. 52-403.
Toth, Paul: *See—*
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Tothill, Gordon R., to Electro Dynamics & Telecom Limited. Apparatus for detecting the presence of an object in a zone having photocells and a series of staggered and overlapping lenses for producing multiple images on said photocells. 3,551,683, 12-29-70, Cl. 250-221.
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Toto, Louis R.: *See—*
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Tott, Edwin H., 50% to Dragon, Emil. Information sheet holder. 3,533,177, 10-13-70, Cl. 40-10.
Totta, Paul A.: *See—*
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Touchman, William S., to National Cash Register Company, The. Stepping motors. 3,517,236, 6-23-70, Cl. 310-96.
Touchy, Wolfgang, to Siemens Aktiengesellschaft. Method and apparatus for producing photolithographic structures, particularly on semiconductor crystal surfaces. 3,518,083, 6-30-70, Cl. 96-33.
Touey, George P.; and Mumpower, Robert C., to Eastman Kodak Company. Method for producing cigarette filters. 3,501,361, 3-17-70, Cl. 156-167.
Toulemonde, Jacques, to Compagnie Generale d'Electricite. Device for conversion of electrical energy from AC to DC vice versa. 3,504,265, 3-31-70, Cl. 321-5.
Toulemonde, Jacques, to Compagnie Generale d'Electricite. Control arrangement for series connected thyristors. 3,510,687, 5-5-70, Cl. 307-252.
Toulemonde, Jacques, to Compagnie Generale D'Electricite. Electrical energy converter. 3,535,611, 10-20-70, Cl. 321-6.
Toulman, William D.: *See—*
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Toulmonde, Jacques; and Chaupit, Jean, to Compagnie Generale d'Electricite. Sequence firing of series-connected controlled rectifiers. 3,521,145, 7-21-70, Cl. 321-27.
Tourdot, Jacques; and Breiss, Jean, to L'Air Liquide, Societe Anonyme pour l'Etude et l'Exploitation des Procedes Georges Claude, and Societe d'Etudes Chimiques Pour l'Industries et l'Agriculture. Process for the bleaching of textiles. 3,547,573, 12-15-70, Cl. 8-108.
Toure, Kleber, to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation. Venturi pump for mixing two fluid streams within a large range of flow rates. 3,511,259, 5-12-70, Cl. 137-114.
Tourish, John P., to Allied Chemical Corporation. Method for the separation of nickel and cadmium from a mixture. 3,540,842, 11-17-70, Cl. 23-102.
Tourmen, Louis, to Societe Grenobloise d'Etudes et d'Applications Hydrauliques (Sogreah). Breakwater structure. 3,538,710, 11-10-70, Cl. 61-4.
Tournere, Marcel Joseph, to Societe Nationale d'Etude et de Construction de Moteurs d'Aviation. Blade fixing arrangement. 3,501,247, 3-17-70, Cl. 415-189.
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Tourre, Raymond. Foldable label holder. 3,540,140, 11-17-70, Cl. 40-23.
Tourtellot, John A., to RCA Corporation. Automatic record changer. 3,545,767, 12-8-70, Cl. 274-10.
Tourtellotte, Fredrick, to Eaton Yale and Towne, Inc. Linear synchronous electric motor with reciprocating armature. 3,536,941, 10-27-70, Cl. 310-27.
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Toussaint, Joseph D., to American Enka Corporation. Yarn winding apparatus. 3,532,279, 10-6-70, Cl. 242-43.2
Toutoundjis, Thomas. Pinball game with player controlled scoring area. 3,498,615, 3-3-70, Cl. 273-120.
Toutoundjis, Thomas. Electric toy monorailway system. 3,533,356, 10-13-70, Cl. 104-1.
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Towbin, Abraham. Infant' neck and head support Infant's neck and head support. 3,522,804, 8-4-70, Cl. 128-133.
Towdson, Howard E., to General Electric Company. Hydrodynamic contaminant isolation for light modulating fluid. 3,489,940, 1-13-70, Cl. 313-91.
Towell, Gordon: *See—*
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Tower, Dell K.; Cecil, Eugene L., Jr.; and Hack, George J., to United States of America, Navy. Electric 'point blank' bomb fuze. 3,517,618, 6-30-70, Cl. 102-70.2

Tower Iron Works, Inc.: *See—*
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Tower Products, Inc.: *See—*
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Towey, James P.: *See—*
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Towle, Jack L.; Mudrak, Anton; and Weir, Vernon J., to Kewanee Oil Company. Disazo dyestuffs containing a diazotized methyl or methoxy-p-chloroaniline coupled with an N, N'- (polyhalo-p-phenylene)-bisacetoacetamide. 3,513,154, 5-19-70, Cl. 260-176.

Towler Hydraulics Limited: *See—*
Cockeram, David A., 3,547,156.
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Towlerton, Richard George, to Boots Pure Drug Company Limited. Nutritional devices for piglets. 3,500,795, 3-17-70, Cl. 119-51.

Towlsaver, Inc.: *See—*
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Towlson, Howard E., to General Electric Company. Light valve fluid thickness regulator. 3,489,941, 1-13-70, Cl. 313-91.

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Town, Frank, to Dobson, W. E. & F., Limited. Mining conveyor control means. 3,521,455, 7-21-70, Cl. 61-45.

Towne, Delbert D., to International Business Machines Corporation. Document handling mechanism. 3,520,532, 7-14-70, Cl. 271-34.

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Schaller, Robert L.; Towne, Donald L.; and Gale, Merald J.,3,491,488.

Towne, Richard C.; and Stalcup, Johnnie V. Anchor with folding stabilizers. 3,527,187, 9-8-70, Cl. 114-208.

Townend, Gordon Howard, to G.K.N. Group Services Limited. Apparatus for measuring the hardness of materials. 3,529,467, 9-22-70, Cl. 73-82.

Townend, John, to General Cigar Co., Inc. Tobacco sheet manufacture of high wet strength. 3,496,947, 2-24-70, Cl. 131-140.

Townend, John, to General Cigar Co., Inc. Tobacco sheet of high wet strength. 3,499,453, 3-10-70, Cl. 131-17.

Towner, Frank Richard, to Sperry Rand Limited. Bearings. 3,494,672, 2-10-70, Cl. 308-2.

Towner, George H., to TRW Inc. Noncontacting capacitance distance gauge having a servo system and a position sensor. 3,522,528, 8-4-70, Cl. 324-61.

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Townsend, David M.; and Welsh, William H., to Textron Inc. Portable power driven circular saw. 3,513,888, 5-26-70, Cl. 143-43.

Townsend Engineering Company: *See—*
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Townsend, Ray T., 3,513,893.
Townsend, Ray T., 3,542,103.
Townsend, Ray T., 3,542,105.

Townsend, Eric Jean; and Fortin, Marcel, to Commissariat a l'Energie Atomique. Glove mounting ring device to permit of performing operations in a sealed container. 3,541,648, 11-24-70, Cl. 24-1.

Townsend, Ralph W. Extractor means. 3,487,733, 1-6-70, Cl. 81-53.

Townsend, Ray T., to Townsend Engineering Company. Skinning apparatus with automatic blade control. 3,504,721, 4-7-70, Cl. 146-130.

Townsend, Ray T., to Townsend Engineering Company. Meat skinning apparatus with stripper roll. 3,513,893, 5-26-70, Cl. 146-130.

Townsend, Ray T., to Townsend Engineering Company. Meat skinning apparatus. 3,542,103, 11-24-70, Cl. 146-130.

Townsend, Ray T., to Townsend Engineering Company. Method of skinning meat. 3,542,105, 11-24-70, Cl. 146-241.

Townsend, Robert D., Jr., to Mobil Oil Corporation. Subsea production satellite. 3,513,910, 5-26-70, Cl. 166-0.5

Townsend, Stephen E., to Xerox Corporation. Modified run length data reduction system. 3,502,806, 3-24-70, Cl. 178-7.1

Townsend, Stephen E., to Xerox Corporation. Bridge gating network having power gain. 3,508,080, 4-21-70, Cl. 307-254.

Townsend, Stephen E.: *See—*
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Townsend, Wilbur J., to Coleman Company, Inc., The. Detachable storage compartment for lantern. 3,496,349, 2-17-70, Cl. 240-50.

Townsend, Wilbur J., to Coleman Company, Inc., The. Burner assembly for gasoline lantern. 3,529,911, 9-22-70, Cl. 431-107.

Townshend, Richard L., to Tecnico, Inc. Clamp fastening element. 3,491,972, 1-27-70, Cl. 248-71.

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Towson, Paul H.; and Bishop, John W., to United States of America, Interior. Dilute phase particulate matter reactor-heat exchanger. 3,513,813, 5-26-70, Cl. 122-4.

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Toy, Frederic J. Apparatus for providing a breathing conduit communicating with the trachea at the base of the neck. 3,511,243, 5-12-70, Cl. 128-305.

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Toy, William W., 50% to Harmon, Lewis G. Gas turbine engine with aerodynamic torque converter drive. 3,500,637, 3-17-70, Cl. 60-39.03

Toy, William W., 50% to Harmon, Lewis G. Turbine and electric powered vehicle. 3,525,874, 8-25-70, Cl. 290-14.

Toy, William W., 50% to Harmon, Lewis G. Turbine and electric powered vehicle. 3,543,873, 12-1-70, Cl. 180-65.

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Toya, Kazuo. Automatic measurement and control of weight uniformity of traveling sheet material. 3,521,600, 7-21-70, Cl. 118-8.

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Toyama, Masatoshi; Sugiyama, Shiro; and Ito, Kazuo, to Kabushiki Kaisha Daini Seikosha. Time measuring device for sports. 3,508,034, 4-21-70, Cl. 235-92.

Toyama, Mitsuo; Midorikawa, Hiroshi; Yasuda, Heinosuke; Takeshima, Tatsuo; and Maejima, Nobuo, to Rikagaku Kenkyusho and Nichiban Co., Ltd. Reflex-reflective globular fine particles and reflective coating materials containing the same. 3,494,912, 2-10-70, Cl. 260-206.

Toyama, Shigetaro. Railroad tracks. 3,549,090, 12-22-70, Cl. 238-281.

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Toyoda, Akira. Electromagnetic pump. 3,502,026, 3-24-70, Cl. 103-37.

Toyoda, Akira. Solenoid type electromagnetic pump. 3,514,228, 5-26-70, Cl. 417-416.

Toyoda Automatic Loom Works, Ltd.: *See—*
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Toyoda, Haruo; Kakizaki, Toshihiko; Hirose, Akira; and Shinozawa, Tetsuichi, to Matsui Toatsu Chemicals Incorporated. Method for inhibiting the nitrification of ammonium nitrogen in soil. 3,526,494, 9-1-70, Cl. 71-30.

Toyoda Machine Works Ltd.: *See—*
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Toyoda, Masatoshi. Electromagnetically propelled apparatus. 3,550,052, 12-22-70, Cl. 335-234.

Toyoda, Yutaka: *See—*
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Toyooka, Tadao, to Matsushita Electric Industrial Co., Ltd. Transparent panel structure having metal filaments embedded therein. 3,506,526, 4-14-70, Cl. 161-5.

Toyooka, Tadao; and Nishida, Takeo, to Matsushita Electric Industrial Co., Ltd. Heater for use with storage battery. 3,527,925, 9-8-70, Cl. 219-521.

Toyooka, Tadao; Ueda, Hiromutsu; and Kobayashi, Akira, to Matsushita Electric Industrial Co., Ltd. Planar heater for melting snow. 3,521,029, 7-21-70, Cl. 219-201.

Toyota, Hiromichi; and Kubota, Katsuju. Means of measuring surface temperature by reflection. 3,492,869, 2-3-70, Cl. 73-355.

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Tra, Josef; and Scherz, Josef, to Voith, J. M., GmbH. Separator for fiber suspension. 3,497,060, 2-24-70, Cl. 209-273.

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Trab, Abdulrahim Cheikh, to Olympia Werke A.G. Planetary-gear printer for data-processing equipment. 3,490,364, 1-20-70, Cl. 101-92.

Traber, Walter: *See—*
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Traber, Walter, to Geigy Chemical Corporation. Tetrahydro-1,3,5-thiadiazine-2-thiones. 3,497,506, 2-24-70, Cl. 260-243.

Traber, Walter, to Geigy Chemical Corporation. Method and composition for controlling microorganisms with tetrahydro-1,3,5-thiadiazine-2-thiones. 3,513,234, 5-19-70, Cl. 424-246.

Traber, Walter, to Geigy Chemical Corporation. Method and composition for controlling microorganisms containing tetrahydro-1,3,5-thiadiazine-2-thiones. 3,532,793, 10-6-70, Cl. 424-246.

Traber, Walter, to Geigy Chemical Corporation. 1,2-Dinitrotetrachlorobenzene as a microbicidal wood preservative. 3,536,815, 10-27-70, Cl. 424-349.

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Traceski, Thomas C.: *See—*
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Tracey, Victor Allen; and Ashcroft, Thomas Brian, to International Nickel Company, Inc., The. Process for producing dispersion hardened nickel. 3,533,781, 10-13-70, Cl. 75-206.

Trachtenberg, Isaac, to Texas Instruments, Incorporated. Method of producing electricity in fuel cell by sequentially increasing and decreasing temperature. 3,522,102, 7-28-70, Cl. 136-86.

Trachtenberg, Leonard; and Trachtenberg, Peter Warren. Clamp for attaching a receptacle supporting bracket. 3,508,732, 4-28-70, Cl. 248-226.

Trachtenberg, Leonard; and Trachtenberg, Peter Warren. Self-heated thermos bottle. 3,549,861, 12-22-70, Cl. 219-441.

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Trachtenberg, William, to Eastman Kodak Company. Method of removing moisture from a web of material. 3,543,410, 12-1-70, Cl. 34-18.

Trachtenberg, William, to Eastman Kodak Company. Method of reproducing a toner image carried by an electrophotographic plate. 3,551,145, 12-29-70, Cl. 96-1.

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Tracy, Alan C., to Kartridg Pak Co. Package with easy opening device. 3,497,131, 2-24-70, Cl. 229-66.

Tracy, Charles W., to International Enterprises, Inc. Screw fastener and apparatus for applying. 3,528,466, 9-15-70, Cl. 144-32.

Tracy, Donald L. Pattern duplicating apparatus. 3,543,636, 12-1-70, Cl. 90-13.2

Tracy, Herbert E., to Borg-Warner Corporation. Mechanical seal construction. 3,526,408, 9-1-70, Cl. 277-88.

Tracy, Herbert E., to Borg-Warner Corporation. Mechanical seal construction. 3,540,742, 11-17-70, Cl. 277-88.

Tracy, John A., to Loewy Engineering Company Limited, The. Rolling mill with means for roll deflection. 3,529,462, 9-22-70, Cl. 72-237.

Tracy, John A.: *See—*
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Tracy, Richard R. Variable lifting surface craft. 3,489,375, 1-13-70, Cl. 244-46.

Tracy, Richard R.; and Spear, Reginald G., to Tioga Wells Corporation. Process for purification of natural gas. 3,488,677, 1-6-70, Cl. 62-23.

Tracy, Robert A., to Singer Company, The. Ultrasonic propagation medium. 3,506,934, 4-14-70, Cl. 333-30.

Tracy, Robert A.: *See—*
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Traelnes, Knut Rude, to Societe d'Assistance technique pour produits Nestle S.A. Foam destruction device. 3,520,822, 7-21-70, Cl. 252-361.

Traffic Equipment Service Company: *See—*
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Trageser, Ludwig. Automatic multi-head embroidering machine. 3,521,584, 7-21-70, Cl. 112-102.

Trahan, Albert J., to Emhart Corporation. Mold locking mechanism for glassware forming machine. 3,528,796, 9-15-70, Cl. 65-357.

Trahms, Harold R. Nitrogen knife. 3,504,646, 4-7-70, Cl. 111-7.

Traina, Richard O., to Plessey Airborne Corporation. Reed relay scanner with transient suppression. 3,519,840, 7-7-70, Cl. 307-93.

Trainer, Donald J. Adjustable base. 3,546,918, 12-15-70, Cl. 72-446.

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Trainor, Patrick M., to Shapiro, Levine & Crane. Wheel lock. 3,513,673, 5-26-70, Cl. 70-259.

Trak Microwave Corporation: *See—*
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Trammel, Earl M., Jr. Internal combustion engine. 3,521,615, 7-28-70, Cl. 123-197.

Trammell, Earl M., Jr. Safety guard device for automobile door lock button. 3,502,369, 3-24-70, Cl. 296-146.

Trammell, Earl M., Jr. Litter disposal unit in an automobile assembly. 3,504,830, 4-7-70, Cl. 224-29.

Trammell, Earl M., Jr. Litter disposal unit for automobiles. 3,526,314, 9-1-70, Cl. 206-19.5

Trammell, Earl M., Jr. Litter disposal unit in an automobile seat assembly. 3,547,326, 12-15-70, Cl. 224-42.42

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Tramposch, Herbert; and Korth, Henry, to Pitney-Bowes, Inc. Weight range scale. 3,545,556, 12-8-70, Cl. 177-45.

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Trap, Hendrikus Johan Lodewijk, to U.S. Philips Corporation. Electrically conductive glass for a secondary emission electrode. 3,520,831, 7-21-70, Cl. 252-518.

Trapasso, Louis E., to Celanese Corporation. Art of making dyeable polyacrylonitrile products. 3,502,607, 3-24-70, Cl. 260-32.6

Trapasso, Louis E.; and Smart, Charles L., to Celanese Corporation. Art of preparing dyeable polyacrylonitrile products. 3,507,823, 4-21-70, Cl. 260-32.6

Trapasso, Louis E.; and Wenrick, John D., to Goodrich, B. F., Company, The. Catalytic oxidation of olefins. 3,497,553, 2-24-70, Cl. 260-533.

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Trask, R Pierce, II, to United States of America, Army. Integral flueric element and manifold plate and method of stacking a series of such plates and fluid coupling the same. 3,495,604, 2-17-70, Cl. 137-15.

Trasp, George Oliver, to Homestead Industries, Inc. Vehicle washing apparatus. 3,543,774, 12-1-70, Cl. 134-57.

Trattner, Hermann; and Leibhard, Erich, to Siemens Aktiengesellschaft. Method of coating copper wire with solder. 3,540,918, 11-17-70, Cl. 117-102.

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Trautman, Jack C., to Mayer, Oscar, & Co., Inc. Method of extracting salt soluble protein from post-rigor meat. 3,523,800, 8-11-70, Cl. 99-107.

Trautman, Jack C.; and Olson, Floyd C., to Mayer, Oscar & Co., Inc. Recovery of pepsin from linings of pig stomachs. 3,549,501, 12-22-70, Cl. 195-66.

Trautman, Richard W., to Clark Equipment Company. Electrical power supply system. 3,519,843, 7-7-70, Cl. 307-65.

Trautmann, Karl-Heinz, to Windmoller & Holscher. Stacking apparatus plastics material sheeting. 3,549,145, 12-22-70, Cl. 271-79.

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Travia, John S.; Salkins, Burton E., Jr.; and Rubin, Leonard S., to United States of America, Army, mesne. Digital phase measuring set. 3,518,541, 6-30-70, Cl. 324-84.

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Travis, Lawrence R., to Electro Connective Systems, Inc. Method of producing printed circuits. 3,508,984, 4-28-70, Cl. 156-3.

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Travor, Bruce W.; and Pitney, Lennord L., to United States of America, Army. Sampling apparatus. 3,534,613, 10-20-70, Cl. 73-425.6

Trayer, Frank C. Totally enclosed component. 3,522,404, 8-4-70, Cl. 200-168.

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Traynor, Edward J.; and Ruffing, Charles R., to Rogers Corporation, mesne. Method of making electrical members. 3,536,545, 10-27-70, Cl. 156-3.
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Treace, Harry T., to Richards Manufacturing Company, Inc. Operating microscope envelope means. 3,528,720, 9-15-70, Cl. 350-61.

Treacy, Cyril S., to Argueso, M., & Co., Inc. Wax, hydrogenated glyceride, chlorinated diphenyl composition. 3,498,813, 3-3-70, Cl. 106-268.

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Treanor, Richard C. Portable fire basket. 3,529,557, 9-22-70, Cl. 110-1.

Treaster, Mahlon L. Fishing lure. 3,494,063, 2-10-70, Cl. 43-42.14

Treaster, Mahlon. Fishing lure. 3,533,183, 10-13-70, Cl. 43-42.21

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Trebble, Maurice W., to Glacier Metal Company Limited, The. Tool change mechanisms. 3,520,050, 7-14-70, Cl. 29-568.

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Treber, Willi O.; and Nothacker, Siegfried, to Gebr. Happich G.m.b.H. Retractable crank for the manual actuation of an opening and closing device. 3,517,571, 6-30-70, Cl. 74-547.

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Trecek, Louis, J., to Dart Industries Inc., mesne. Method and apparatus for manufacturing collapsible flexible plastic container tubes. 3,504,067, 3-31-70, Cl. 264-40.

Trecker, David J.; Henry, Joseph P.; and Lynn, John W., to Union Carbide Corporation. Norbornane diisocyanates. 3,492,330, 1-27-70, Cl. 260-453.

Treder, Charles F., to Controls Company of America. Bulbless expansion valve. 3,537,645, 11-3-70, Cl. 236-92.

Treff, Ernest H., to Smithe, F. L., Machine Company, Inc. Clamp. 3,520,219, 7-14-70, Cl. 83-453.

Treffeisen, Donal R.; and Zupanick, Joseph E., to Sperry Rand Corporation. Obstacle clearance system for aircraft. 3,530,465, 9-22-70, Cl. 343-7.

Treffinger, Hans: *See—*
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Treffner, Charles. Machine for slitting plastic film and the like. 3,522,748, 8-4-70, Cl. 82-101.

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Tregilgas, Edward T. Atlantic Richfield Company Alkylation improvement through alkylate recycle. 3,515,770, 6-2-70, Cl. 260-683.48

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Treharne, Richard W., to Kettering Scientific Research, Inc. Rapid scanning spectrophotometer. 3,521,958, 7-28-70, Cl. 356-84.

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Trehn, Bengt Ison; and Westman, Sten Alfred, to Metior AB. Release mechanisms. 3,521,035, 7-21-70, Cl. 235-61.7

Trehu, Yves Michel, to Ethicon, Inc., mesne. Suture preparation. 3,531,561, 9-29-70, Cl. 264-210.

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Treiber, Otis D. Jet engine exhaust silencer construction. 3,495,682, 2-17-70, Cl. 181-51.

Treible, Edwin S., Jr., to Ingersoll-Rand Company. Commutating device. 3,509,398, 4-28-70, Cl. 310-220.

Treichel, Richard, to Deere & Company. Automatically shiftable direction control valve. 3,543,516, 12-1-70, Cl. 60-52.

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Treiterer, Joseph, to Ohio State University, The. Source-sensor longitudinal control system. 3,533,061, 10-6-70, Cl. 340-33.

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Treloar, Lester D.; and Johnson, Francis L. Barbecue oven. 3,524,403, 8-18-70, Cl. 99-331.

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Trementozzi, Quirino A.; Gebura, Stanley E.; and Locke, Frederic J., to Monsanto Company. Blends of styrene-acrylonitrile resins with graft copolymers of diene rubber substrate and hydroxylic polymer superstrate. 3,488,405, 1-6-70, Cl. 260-876.

Trementozzi, Quirino A.; and Lee, Yoon Chai, to Monsanto Company. Interpolymers of methacrylonitrile and lower alpha- olefins and packaging materials prepared therefrom. 3,540,577, 11-17-70, Cl. 206-46.

Tremont, Harry H. Apparatus and process for freezing liquid in a section of a pipe. 3,498,071, 3-3-70, Cl. 62-66.

Tremper, Woodrow F. Trash can support stand assembly. 3,530,995, 9-29-70, Cl. 211-71.

Trench, William H., to Howmet Corporation. Materials handling apparatus for treatment station. 3,530,826, 9-29-70, Cl. 118-310.

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Trenkler, Werner; and Vettel, Karl, to Porsche, Dr.-Ing. H.c.F., K.G., Firma. Motor vehicle multisectional roof. 3,526,427, 9-1-70, Cl. 296-137.

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Trent Concrete Limited: *See—*
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Trent, Walter R., to Staph Phree Products Limited. Washing process and compositions therefor. 3,523,087, 8-4-70, Cl. 252-106.

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Trepanier, Donald L., to Dow Chemical Company, The. Imino ester method for producing 1,4,5,6- tetrahydro-as-triazine. 3,497,509, 2-24-70, Cl. 260-248.

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Trepka, William J.; and Sonnenfeld, Richard J., to Phillips Petroleum Company. Allyltin compounds as modifiers for haloarylllithium initiated polymerizations of isoprene or butadiene. 3,536,691, 10-27-70, Cl. 260-94.2

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Treptow, Heinz: *See—*
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Tresch, Charles Henri: *See—*
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Tresselt, Carl P., to Bendix Corporation, The. Tapered line directional coupler. 3,528,038, 9-8-70, Cl. 333-10.

Tressler, Donald K. Method of preparing a ready-to-eat oat cereal. 3,490,915, 1-20-70, Cl. 99-80.

Tressler, Donald K. Process of preparing oats cereal. 3,494,769, 2-10-70, Cl. 99-83.

Trethewey, William C., to Owens-Corning Fiberglas Corporation. Method and apparatus for manufacturing fibrous structures. 3,539,316, 11-10-70, Cl. 65-2.

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Tretter, James R., to Pfizer, Chas., & Co., Inc. Recovery of pure cis 11-(3-dimethylaminopropylidene)- 6,11-dihydrodibenz(b,e)oxepine from admixture with its trans isomer. 3,509,175, 4-28-70, Cl. 260-333.

Tretter, James R., to Pfizer, Chas., & Co., Inc.Process for separating the cis isomer from a mixture of cis and trans N-[3-(2-chlorodibenz[b,e] oxepin-11(6H)-ylidene)-propyl] piperazine. 3,514,449, 5-26-70, Cl. 260-240.

Treuthart, Robert L., to North American Rockwell Corporation. Laser output coupler. 3,517,327, 6-23-70, Cl. 331-94.5

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Troutner, Arthur L. Fluid pressure actuated clamp. 3,490,759, 1-20-70, Cl. 269-35.

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parting elasticity to woven textile fabrics. 3,538,563, 11-10-70, Cl. 26-18.6
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Tucker, Bobbie R., to Parker Industries, Inc. Vehicle gravity bed. 3,521,930, 7-28-70, Cl. 298-24.
Tucker, Council A.: *See—*
Perrin, Jack L.; and Tucker, Council A.,3,540,619.
Tucker, Don E.: *See—*
Murphy, Tom H.; and Tucker, Don E.,3,507,128.
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Tucker, Elton M.: *See—*
Kosmo, Joseph J.; and Tucker, Elton M.,3,537,668.
Tucker, Hartwell F., to Small Business Administration. Scheduling panels incorporating rotatable dials and flexible identification media. 3,518,963, 7-7-70, Cl. 116-133.
Tucker, Hartwell F. Filing device for receiving and displaying cards containing data. 3,535,806, 10-27-70, Cl. 40-124.2
Tucker, Howard E.: *See—*
Collman, Joel; Alvord, Lowell R.; and Tucker, Howard E.,3,524,618.
Tucker, Huel C., to Monsanto Company. Peak voltage reader. 3,532,980, 10-6-70, Cl. 324-103.
Tucker, Jesse Roy. Sprinkler support. 3,542,294, 11-24-70, Cl. 239-201.
Tucker, John G.: *See—*
Etchison, John O., Jr.; and Tucker, John G.,3,514,835.
Tucker, John R.: *See—*
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Tucker, Kenneth Richard, to United States of America, Army. Eccentric chuck. 3,515,397, 6-2-70, Cl. 279-6.
Tucker, Linwood G., to Koppers Company, Inc. Flow control and shut-off valve for gravity type larry car. 3,511,391, 5-12-70, Cl. 214-36.
Tucker, Linwood G., to Koppers Company, Inc. Coke oven standpipe lid and damper valve operating mechanism. 3,546,077, 12-8-70, Cl. 202-270.
Tucker, Malcolm John; and Smith, Norman Dennis, to National Research Development Corporation. Electromagnetic flowmeters. 3,550,446, 12-29-70, Cl. 73-194.
Tucker, Martin: *See—*
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Tucker, Nathaniel B.: *See—*
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McCune, Homer W.; and Tucker, Nathaniel B.,3,535,420.
Tucker, Richard B. C.; Fracalossi, Roland N.; Crawford, William C.; and Sollers, Joseph S., to Burnett, Wm. T., & Co. Incorporated. Lacrosse stick. 3,507,495, 4-21-70, Cl. 273-96.
Tucker, Robert L. Means for quick and easy mounting of an electrical accessory within an outlet box. 3,526,703, 9-1-70, Cl. 174-53.
Tucker, Sherman R., Sr. Fishing appliance. 3,499,242, 3-10-70, Cl. 43-25.

Tucker, Stanley, deceased (by Cherry, Elliot J.; executor), to Mobil Oil Corporation. Cation exchanging crystalline aluminosilicates. 3,528,768, 9-15-70, Cl. 23-111.
Tucker, Stanley J.: *See—*
Rednick, Alvin B.; and Tucker, Stanley J.,3,507,952.
Tucker, Vincent W.; Chilton, Daniel T.; and Vandall, Edward F., to Ametak, Inc. Clear buck pressing machine. 3,500,567, 3-17-70, Cl. 38-35.
Tucker, Vincent W.; Chilton, Daniel; and Vandall, Edward F., to Ametek, Inc. Garment press. 3,535,802, 10-27-70, Cl. 38-16.
Tucker, Warren C. Portable edge printer and coater. 3,494,703, 2-10-70, Cl. 401-218.
Tucker, William B. Aluminum disc armature with copper brush track. 3,488,539, 1-6-70, Cl. 310-268.
Tuckmantel, Joachim: *See—*
Noschinski, Rudiger; and Tuckmantel, Joachim,3,506,245.
Noschinski, Rudiger; and Tuckmantel, Joachim,3,506,461.
Tuczek, Franz, to Boge GmbH. Hydropneumatic, self-pumping, telescopic shock absorber, particularly for motor vehicles. 3,497,199, 2-24-70, Cl. 267-64.
Tudisco, Giuseppe. Turnover wall-a-bed with counterbalance weight and end-stroke shock absorber brake. 3,522,615, 8-4-70, Cl. 5-10.
Tudor Control Systems Limited: *See—*
Hill, Wallace J., 3,543,200.
Tudor Metal Products Corporation: *See—*
Payne, Calvin L., Jr., 3,545,758.
Tudor-Owen, Ronald Llewelyn Trevor, to General Electric Company Limited, The. Communication systems employing code modulation. 3,500,205, 3-10-70, Cl. 325-38.
Tudoran Tradeshop, Inc.: *See—*
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Tuemmler, William B.; and Linder, Seymour M., to FMC Corporation. Preparation of ortho- and para-nitrophenols. 3,506,724, 4-14-70, Cl. 260-622.
Tuffaloy Products, Inc.: *See—*
Width, Robert B., 3,504,159.
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Dubb, Hubert E.; Greenough, Ralph C.; and Tuffly, Bartholomew L.,3,507,717.
Tuffnell, Derrick Percival; and Kemp, Stanley William, to General Motors Corporation. Multi-media filter units. 3,493,117, 2-3-70, Cl. 210-266.
Tuffnell, Derrick Percival; and Kemp, Stanley William, to General Motors Corporation. Water separating fuel filters. 3,502,218, 3-24-70, Cl. 210-305.
Tufo, Thomas G. Evaporation-condensation recovery of fresh water using gas-traversable porous bed. 3,539,454, 11-10-70, Cl. 203-11.
Tuggle, Lloyd H.: *See—*
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Tulagin, Vsevolod: *See—*
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Tulagin, Vsevolod, to Xerox Corporation. Method of proofing and screening color separation using the manifold imaging process. 3,512,968, 5-19-70, Cl. 96-1.2
Tulagin, Vsevolod, to Xerox Corporation. Photoelectrophoretic imaging system employing a photoconductor coating for the blocking electrode. 3,535,221, 10-20-70, Cl. 204-181.
Tulchinsky, Leonid Naumovich. Thermistor for measuring surface temperature. 3,508,185, 4-21-70, Cl. 338-22.
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Tulin, Nikolai Alexeevich; Bastrakov, Nikolai Fedorovich; Silaev, Alexandr Yakovlevich; Pismenov, Vitaly Semenovich; Krivtsova, Ljudmila Viktorovna; Gutara, Gennady Vasilievich; Pritulyak, Leonid Grigorievich; Borodin, Viktor Savelievich; and Donets, Igor Denisovich. Installation for casting metal with the electroslag refining thereof. 3,523,995, 8-11-70, Cl. 164-252.
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Tull, Roger J.; and Pollak, Peter I., to Merck & Co., Inc. Preparation of pyrazinoylguanidines from pyrazinoylureas. 3,539,569, 11-10-70, Cl. 260-250.
Tull, Roger J.; and Pollak, Peter I., to Merck & Co., Inc. Process for the preparation of 1H-imidazo[4,5-b] pyrazine-2-ones. 3,541,093, 11-17-70, Cl. 260-250.
Tull, Roger J.; Weinstock, Leonard M.; and Mulvey, Dennis M., to Merck & Co., Inc. Synthesis of arylamino methylenemalonates. 3,515,745, 6-2-70, Cl. 260-471.
Pollak, Peter I.; and Tull, Roger J.,3,503,972.
Tristram, Edward W.; Tull, Roger J.; and Powell, Burwell F.,3,551,498.
Weinstock, Leonard M.; and Tull, Roger J.,3,488,360.
Weinstock, Leonard M.; and Tull, Roger J.,3,535,365.
Tull, Victor Frederick George; and Duffield, Frederick Edward, to Ether Engineering Limited. Strain responsive transducer means of the diaphragm type. 3,493,912, 2-3-70, Cl. 338-2.
Tulley, Fredrick T.; and Harris, Berlin C., Jr., to Ethyl Corporation. Process and apparatus for fluid treatment. 3,544,457, 12-1-70, Cl. 210-65.
Tullsen, Volney, to GAF Corporation. Method of preparing phthalocyanine pigments. 3,544,586, 12-1-70, Cl. 260-314.5
Tully, Frank R.; and Meyer, Warren L., to Motor Wheel Corporation. Wheel rim trim ring. 3,517,968, 6-30-70, Cl. 301-37.
Tulumello, Michael, 1/2 to Panzarella, Joseph. Rosette cutting bit. 3,543,820, 12-1-70, Cl. 144-219.
Tuma, Alex: *See—*
Rausing, Gad Anders; and Tuma, Alex,3,531,908.
Tuma, Alex, to AB Tetra Pak. Method and a device for removing liquid in an aseptic way from a web-shaped packaging material. 3,495,932, 2-17-70, Cl. 21-2.
Tuma, Alex, to AB Tetra Pak. Combined pipe coupling and pipe flushing device. 3,499,461, 3-10-70, Cl. 137-240.
Tuma, Alex, to AB Tetra Pak. Device intended preferably for sterilizing web- like packaging materials. 3,511,592, 5-12-70, Cl. 21-92.
Tumbiolo, Barney. Security bar door lock assembly. 3,527,069, 9-8-70, Cl. 70-114.
Tumerman, Leon: *See—*
Guth, Jules H.; and Tumerman, Leon,3,546,206.
Tumerman, Leon; Guth, Jules H.; and Hollis, Robert A., to Krafter Corporation. Water absorptive protein. 3,528,818, 9-15-70, Cl. 99-56.
Tumicki, Thomas F., to United Aircraft Corporation. Ejector with variable inner flap. 3,511,441, 5-12-70, Cl. 239-265.29
Tumicki, Thomas F., to United Aircraft Corporation. Ejector shroud system. 3,527,409, 9-8-70, Cl. 239-265.39
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Tummarello, Natale. Fastening means for wall panels. 3,507,315, 4-21-70, Cl. 151-41.7
Tumpak, John Stephen; and Dashew, Stanley A., to Dashaveyor Company, The. Articulated railway transportation system. 3,540,380, 11-17-70, Cl. 104-246.
Tundermann, Werner Otto: *See—*
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Tundo, Antonio: *See—*
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Mangini, Angelo; Tundo, Antonio; Bonini, Bianca Flavia; Rossetti, Marta; and Mazzanti, Germana,3,527,745.
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Tuner, Warren H.; and Albinak, Marvin J., to Owens-Illinois, Inc. Photoluminescent glasses. 3,506,587, 4-14-70, Cl. 252-301.4
Tung, Chi Fang; and Beck, Warren R., to Minnesota Mining and Manufacturing Company. High titania glass articles and process. 3,493,403, 2-3-70, Cl. 106-47.
Tung, George K. L.: *See—*
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Tungate, William H., to American Fire Pump Company. Positive clutch with friction synchronizing means. 3,547,241, 12-15-70, Cl. 192-53.
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Ide, Eleanor R.; Marcus, Mitchell P.; and Tunis, Cyril J.,3,548,202.
Tunis, Cyril J., to International Business Machines Corporation. Adaptive information retrieval system. 3,548,385, 12-15-70, Cl. 340-172.5
Tunis, Joseph K., III, to Plas-Steel Products, Inc. Reinforced plastic bearing and method for fabricating same. 3,533,668, 10-13-70, Cl. 308-238.
Tunkel, Norman: *See—*
Neblett, Richard F.; and Tunkel, Norman,3,511,780.
Tunnell, Robert W. Package and manufacturer of small wheelbarrows. 3,506,319, 4-14-70, Cl. 312-35.

Tunner, Alex, to Canadian Industries Limited. Heat sealing device with means for moderating the temperature of the seal boundary. 3,547,743, 12-15-70, Cl. 156-583.

Tunney, Gilbert H. Camera-positioning apparatus. 3,516,343, 6-23-70, Cl. 95-82.

Tunstall, Wilfred; and Wegner, Albert. Hose coupling tool. 3,504,388, 4-7-70, Cl. 7-1.

Tunstall, Wilfred; and Wegner, Albert. Electrical plug blade safety cover. 3,539,968, 11-10-70, Cl. 339-37.

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Tupper, George B., to Texaco Inc. Fouling inhibitors and processes for using them. 3,546,097, 12-8-70, Cl. 208-48.

Tupper, Myron D., to Omark Industries, Inc. Dual element top sharpening saw chains. 3,545,508, 12-8-70, Cl. 143-135.

Tupper, Myron D.; Locati, Norman C.; and Graversen, Curtis L., to Omark Industries, Inc. Method of rendering files more durable, and file produced thereby. 3,531,840, 10-6-70, Cl. 29-78.

Tupper, Myron D.: *See—*
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Tupper, Ward A.: *See—*
Tupper, Willis E.; and Tupper, Ward A.,3,513,872.

Tupper, Willis E.; and Tupper, Ward A., to Dexter Automatic Products Co., Inc. Anti-syphon valve. 3,513,872, 5-26-70, Cl. 137-484.2

Turai, Leslie L.; and Hoffman, Paul, to Hudson Pulp & Paper Corporation. Embossed kraft paper and paper bags made therefrom. 3,495,761, 2-17-70, Cl. 229-53.

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Turbett, George R., to Air Reduction Company, Incorporated. Photoelectric kerf and lead compensator having two concentric pivotably mounted housings for compensation in two directions. 3,499,155, 3-3-70, Cl. 250-202.

Turbeville, Clarence S.; and Walker, Ike J., to Bomber Bait Company. Fish lure. 3,504,454, 4-7-70, Cl. 43-42.11

Turbeville, Clarence S.; and Walker, Ike J., to Bomber Bait Company. Fish lure. 3,533,182, 10-13-70, Cl. 43-42.14

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Turbo Machine Company: *See—*
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Turbo Refrigerating Company: *See—*
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Turbo-Circle-Wing, Inc.: *See—*
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Turboflex Limited: *See—*
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Goody, Edward W., 3,500,658.

Turbokonsult AB: *See—*
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Turbotec, Incorporated: *See—*
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Turboult, Jean, to CSF-Compagnie Generale de Telegraphie Sans Fil. Head-up display systems for aircraft piloting. 3,510,636, 5-5-70, Cl. 235-150.23

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Turchon, Jack: *See—*
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Turco Paint & Varnish Co.: *See—*
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Turczyn, Alexander, to Sperry Rand Corporation. Permanent magnetic recording. 3,509,547, 4-28-70, Cl. 340-174.

Turczyn, Alexander, to Sperry Rand Corporation. Thin film keepered memory element. 3,531,782, 9-29-70, Cl. 340-174.

Turecek, Jan, to Tesla, narodni podnik. Capacitive sensing portable high voltage detecting apparatus with means for checking operability of the detecting apparatus. 3,546,587, 12-8-70, Cl. 324-133.

Turecki, Anatole, to RCA Corporation. Counter circuits. 3,508,033, 4-21-70, Cl. 235-92.

Turetzky, Melvin M., to GAF Corporation. Quaternary anthraquinone dyestuffs. 3,492,319, 1-27-70, Cl. 260-377.

Turgeon, Joseph A., to I-T-E Circuit Breaker (Canada) Limited. Isolating switch with sphere gap. 3,493,699, 2-3-70, Cl. 200-48.

Turgeon, Joseph A., to I-T-E Circuit Breaker (Canada) Limited. Expansion joint for end-wise joining of conductors of an isolated phase busbar. 3,539,964, 11-10-70, Cl. 339-9.

Turi, Edith: *See—*
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Turillon, Pierre P.; and Hanley, Patrick J., to International Nickel Company, Inc., The. Alloying method. 3,544,312, 12-1-70, Cl. 75-135.

Turk, Amos: *See—*
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Turk, Charles D.; and Clarke, John F., to Texas Instruments, Incorporated. Products composed of superplastic crystalline materials. 3,536,539, 10-27-70, Cl. 148-12.9

Turk, Leonard G., to NRM Corporation. Actuating device and control for tire curing press. 3,487,507, 1-6-70, Cl. 18-17.

Turk, Leonard G.; Ulm, Ernest S.; and Stoyanov, Benjamin, to NRM Corporation. Loader for tire curing press. 3,530,533, 9-29-70, Cl. 18-2.

Turkat, Michael, to Pfizer Inc., mesne. Pyrolytic graphite filments. 3,531,249, 9-29-70, Cl. 23-209.2

Turke, George J., Jr. Full time vehicle power assist control system. 3,528,522, 9-15-70, Cl. 180-103.

Turkewitsch, William, to Scholl Mfg. Co., Inc., The. Insole material having controlled slippage characteristics and method of making same. 3,489,594, 1-13-70, Cl. 117-72.

Turkewitsch, William, to Scholl Mfg. Co., Inc., The. Resin impregnating of foamed polyurethane. 3,503,822, 3-31-70, Cl. 156-242.

Turle, Arthur P. Fishing weights. 3,490,167, 1-20-70, Cl. 43-44.97

Turman, William C. Filter cartridge efficiency demonstrator. 3,535,798, 10-27-70, Cl. 35-51.

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Turmix A.G.: *See—*
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Turnage, Rodger Elmo, Jr., to Stromberg Datagraphix, Inc. Rectangular coordinate indicating system employing cordless stylus. 3,504,334, 3-31-70, Cl. 340-16.

Turnblade, Richard C.: *See—*
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Turnbough, Harold L.; and Schuette, Thomas J., to Alvey, Inc. Conveyor. 3,545,596, 12-8-70, Cl. 198-129.

Turnbull, John Hilton: *See—*
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Turnbull Marine Design Company, Limited: *See—*
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Turnbull, Paul J. Rotary engine. 3,505,981, 4-14-70, Cl. 123-11.

Turnbull, Thomas: *See—*
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Turner, Allen H., to Ford Motor Company. Process for electrocoating and polymerizing by radiation. 3,501,390, 3-17-70, Cl. 204-181.

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Turner, Anthony Charles: *See—*
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Turner, Arvin William, Jr. Fence post. 3,498,588, 3-3-70, Cl. 256-47.

Turner, Charles R.: *See—*
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Turner, Charles S., to Recognition Equipment Incorporated. Video amplifier with compensation for unwanted variations in carrier modulation. 3,526,769, 9-1-70, Cl. 250-214.

Turner, Charlie B., to General Electric Company. Photoelectric control device. 3,543,099, 11-24-70, Cl. 317-124.

Turner Corporation: *See—*
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Turner, Donald F.; and Webster, Ronald L., to Armco Steel Corporation. Break down reel. 3,533,571, 10-13-70, Cl. 242-77.

Turner, Edward C.; and Poyser, John, to Borg-Warner Corporation. Chain tensioner. 3,490,302, 1-20-70, Cl. 74-242.11

Turner, Edwin John: *See—*
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Turner, Edwin M.; Meinke, Hans H.; and Lindenmeier, Heinz. Subminiature integrated antenna. 3,521,169, 7-21-70, Cl. 325-105.

Turner, Eric B.; and Sommer, Frederick W., to Texaco Trinidad, Inc. Method of treating asphaltic type residues. 3,530,939, 9-29-70, Cl. 166-303.

Turner, Frank A. Toy car invention. 3,499,542, 3-10-70, Cl. 212-59.

Turner, Frank E.; and Graham, Thomas A. Gasket for pipe clamp. 3,487,856, 1-6-70, Cl. 138-99.

Turner, Frank E.: *See—*
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Turner, Gary L.: *See—*
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Turner, George Christie, to Ferranti Limited. Method of producing an array of light pipes. 3,508,896, 4-28-70, Cl. 65-31.

Turner, Gordon James: *See—*
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Turner, H. R., (Willenhall) Limited: *See—*
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Turner, Harold Leslie, to Lorant, Joseph John. Surface treatment of metals. 3,523,835, 8-11-70, Cl. 148-6.24

Turner, Harold Roy, to Turner, H. R., (Willenhall) Limited. Seat mechanisms. 3,511,534, 5-12-70, Cl. 297-373.

Turner, Henry H. Nutcracker. 3,524,486, 8-18-70, Cl. 146-15.

Turner Industries Limited: *See—*
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Turner, James D.: *See—*
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Turner, James G., Jr. Flotation jacket inflating device. 3,510,025, 5-5-70, Cl. 222-5.

Turner, James W.; and Holly, Charles J., Jr. Countermeasure radar chaff. 3,544,997, 12-1-70, Cl. 343-18.

Turner, Jennings. Universal driving and clamp mounting structure. 3,546,985, 12-15-70, Cl. 82-40.

Turner, John Cameron, to Biorex Laboratories Limited. Glycyrrhetinic acid derivatives. 3,511,871, 5-12-70, Cl. 260-468.

Turner, John Charles, to Spott Electrical Company. Article sorting system controlled by radio frequency energy signals. 3,520,406, 7-14-70, Cl. 209-111.5

Turner, John F., to Kidde, Walter, & Company, Inc. Adjustable link. 3,530,740, 9-29-70, Cl. 74-586.

Turner, John O.; and Glickman, Samuel A., to GAF Corporation. Preparation of vinyl aryl ethers. 3,549,710, 12-22-70, Cl. 260-612.

Turner, John W., Jr., to Jackson, Byron, Inc. Stabilized pipe supporting structure for drilling rigs. 3,498,586, 3-3-70, Cl. 254-139.

Turner, John W., Jr.: *See—*
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Jones, Taylor L.; and Turner, John W., Jr.,3,495,864.
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Langowski, Faustyn C.; and Turner, John W., Jr.,3,526,425.
Sullivan, Wayne M.; and Turner, John W., Jr.,3,537,518.

Turner, John W. Seal arrangement for lined tubular members. 3,499,666, 3-10-70, Cl. 285-55.

Turner, Justin L., to Message Systems, Inc. Transmitting antenna for audio induction communication system. 3,549,818, 12-22-70, Cl. 179-82.

Turner, Kenneth E.: *See—*
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Turner, Kenneth L.: *See—*
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Turner, Lawrence Alexander, to Fluid Dynamics (Proprietory) Limited. Gate valve means for controlling the flow of water over a weir, dam wall or the like. 3,509,724, 5-5-70, Cl. 61-25.

Turner, Leonard; Bradshaw, Christopher Patrick Cadman; and Howman, Eric James, to British Petroleum Company Limited, The. Olefin preparation. 3,526,676, 9-1-70, Cl. 260-683.

Turner, Leonard; and Hunter, Philip John, to British Petroleum Company Limited, The. Dehydrogenation process over Pt-exchanged 5A sieve. 3,527,836, 9-8-70, Cl. 260-683.3

Turner, Lyman H., to Xerox Corporation. Roll stock converting apparatus. 3,506,175, 4-14-70, Cl. 226-135.

Turner, Lyman H., to Xerox Corporation. Multi-length document recording apparatus. 3,524,704, 8-18-70, Cl. 355-3.

Turner, Lyman H., to Xerox Corporation. Belt assembly. 3,536,323, 10-27-70, Cl. 271-74.

Turner, Malcolm M.: *See—*
Cameron, Daniel F.; and Turner, Malcolm M.,3,497,325.

Turner, Manning Lee, 20% to Richards, Channing L., 20% to Simpson, Howard C., 12 1/2% to Shumate, Beuna S., and 7 1/2% to Zavitz, Armand L. Arrow having freely shiftable arrowhead. 3,527,463, 9-8-70, Cl. 273-106.5

Turner, Maurice: *See—*
Farrand, Thomas Henry; and Turner, Maurice,3,495,295.

Turner, Milo I., Jr. Dressing device for spot welding electrodes. 3,498,008, 3-3-70, Cl. 51-170.

Turner, Norman G., to Superior Concrete Accessories, Inc. Window sash reglet section. 3,512,318, 5-19-70, Cl. 52-100.

Turner, Philip L., to Ford Motor Company. Electrode feeding mechanism. 3,497,663, 2-24-70, Cl. 219-69.

Turner, Ralph W., Jr., to Improved Machinery Inc. Rotary drum filter. 3,530,992, 9-29-70, Cl. 210-392.

Turner, Richard G.: *See—*
Shephard, Basil R.; Clachan, Margaret Loudon; Kennedy, David Rankine; and Turner, Richard G.,3,539,378.

Turner, Robert B., to Dow Chemical Company, The. Method of employing aqueous fluorocarbon concentrates in chlorinated solvent application to textiles. 3,535,156, 10-20-70, Cl. 117-161.

Turner, Robert L. Sealant for pipe joints. 3,510,321, 5-5-70, Cl. 106-33.

Turner, Robert, to United States of America, Navy. Plasma ejection system including breech and muzzle, theta-pinch coils. 3,500,123, 3-10-70, Cl. 315-111.

Turner, Ronald A., to United States of America, Navy. Automatic noise rejection apparatus. 3,497,815, 2-24-70, Cl. 328-110.

Turner, Stephen Elliot: *See—*
McGrath, Martin Hager; Hahn, Herman Emil; Turner, Stephen Elliot; Rowland, John Carrere; and Leuteritz, Raoul Hugh,3,534,920.

Turner, Thomas Miles, to Ellicott Machine Corporation. Recessed expeller vanes. 3,535,051, 10-20-70, Cl. 415-212.

Turner, Warren H.: *See—*
Albinak, Marvin J.; and Turner, Warren H.,3,499,775.

Turner, Warren H.; and Albinak, Marvin J., to Owens-Illinois, Inc. Photoluminescent glasses. 3,522,190, 7-28-70, Cl. 252-301.4

Turner, Warren H.; and Albinak, Marvin J., to Owens-Illinois, Inc. Luminophors and method. 3,522,191, 7-28-70, Cl. 252-301.6

Turner, Warren H.; and Albinak, Marvin J., to Owens-Illinois, Inc. Cathodoluminescent glasses and cathode ray tubes employing same as the target. 3,543,074, 11-24-70, Cl. 313-92.
Lee, Haynes A., Jr.; and Turner, Warren H.,3,522,189.

Turner, Wesley. Cup-shaped bread or cake and integral cup. 3,518,091, 6-30-70, Cl. 99-88.

Turner, William F.: *See—*
Bernardi, Eugene L.; and Turner, William F.,3,541,642.

Turner, William R., to Vitro Corporation of America. Frequency conversion imaging system. 3,510,833, 5-5-70, Cl. 340-13.

Turner-Jones, Annette La Touche: *See—*
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Turney, Eugene T., Jr. Apparatus to selectively remove powder from coated sheet material. 3,514,803, 6-2-70, Cl. 15-306.

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Turnquist, Ralph O.: *See—*
Warnemuende, Joseph T.; and Turnquist, Ralph O.,3,526,243.

Turow, John: *See—*
Janowsky, Seymour; Skurnik, Harold; and Turow, John,3,524,492.

Turpen, Russell L., to Compass Container Company, Inc. Hinge for cargo container doors and the like. 3,488,793, 1-13-70, Cl. 16-128.

Turpin, Alexander J., to Smoke-Bin Manufacturing Incorporated. Flare stack combustion tip. 3,547,567, 12-15-70, Cl. 431-202.

Turpin, Alexander J.: *See—*
Yarnell, William T.; and Turpin, Alexander J.,3,548,760.

Turpin, Charles H.; and Leezer, James R., to Pillsbury Company, The. Quick opening dough container. 3,506,183, 4-14-70, Cl. 229-51.

Turquette, Atwell R., 1/4 to Young, Horace A. Design for multivalued circuits. 3,489,887, 1-13-70, Cl. 235-152.

Turriere, Jean Emile, to International Standard Electric Corporation. Antenna positioning device for following moving bodies. 3,510,877, 5-5-70, Cl. 343-760.

Turriere, Jean Emile, to International Standard Electric Corporation. Selective calling system for a main station and satellites. 3,532,987, 10-6-70, Cl. 325-55.

Turro, Eugene J., to Central Soya Company, Inc. Protein base for bakery goods. 3,529,969, 9-22-70, Cl. 99-86.

Turro, Eugene J., to Central Soya Company, Inc. Bakery formulation. 3,529,970, 9-22-70, Cl. 99-90.

Turtle, Quentin C., to General Signal Corporation. Solid state switch controller for universal or D.C. motors including a unique trigger and regulator therefor. 3,523,234, 8-4-70, Cl. 318-565.

Turtle, Quentin C.: *See—*
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Turton, Walter. Method for making improved fabric constructions. 3,495,423, 2-17-70, Cl. 66-84.

Turtora, John J.: *See—*
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Turturro, Louis A., Jr.: *See—*
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Turturro, Michael A.; Turturro, Louis A., Jr.; and Turturro, Robert H. Method of constructing houses. 3,494,091, 2-10-70, Cl. 52-745.

Turturro, Robert H.: *See—*
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Turula, Alexander Eugene: *See—*
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Turzillo, Lee A. Method of producing cast-in-place piles or like bodies in a situs. 3,504,497, 4-7-70, Cl. 61-35.

Turzillo, Lee A. Method for making concrete piles. 3,507,124, 4-21-70, Cl. 61-53.64

Turzillo, Lee A. Method for forming cast-in-place reinforced concrete pile. 3,512,366, 5-19-70, Cl. 61-53.64

Turzillo, Lee A. Method and means for protecting an earth situs against scour. 3,520,142, 7-14-70, Cl. 61-38.

Turzillo, Lee A. Method of protecting areas of an earth situs against scour. 3,524,320, 8-18-70, Cl. 61-38.

Turzillo, Lee A. Method and means for stabilizing structural layer overlying earth materials in situ. 3,530,675, 9-29-70, Cl. 61-35.

Tusa, John; and Lawrence, Leslie C., to Bata Shoe Company, Inc. Articles of footwear. 3,509,647, 5-5-70, Cl. 36-2.5

Tusche, Klaus Joachim, to Vereinigte Aluminium-Werke Aktiengesellschaft. Method for continuous extraction of bauxite in a tubular reactor. 3,497,317, 2-24-70, Cl. 23-143.

Tuschhoff, Ludwig, to Penicillin-Gesellschaft Dauelsberg & Co. Multi-chamber syringe. 3,511,239, 5-12-70, Cl. 128-218.

Tushaus, Leonard A.: *See—*
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Tushim, Michael P., to Brown Engineering Company, Inc. Automatic relative position control device. 3,543,318, 12-1-70, Cl. 14-71.

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Tuten, William J.: *See—*
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Tutherly, Herbert W., to United Aircraft Corporation. Valve means with controlled hysteresis. 3,514,072, 5-26-70, Cl. 251-35.

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Tuthill, Edwin J.; and Fedelem, Joseph, to United States of America, Atomic Energy Commission. Apparatus for continuous chromatography. 3,527,350, 9-8-70, Cl. 210-198.

Tuthill Pump Company: *See—*
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Tutt, Walton G.: *See—*
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Tutterrow, Jack N.: *See—*
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Tutthill, Fred E., to Kenco Pump, division of American Crucible Products Company, The. Unitary hermetic connector with contained sealing means. 3,495,028, 2-10-70, Cl. 174-153.

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Tuttle, Harry F. Throttle-actuated flashing signal lights. 3,522,582, 8-4-70, Cl. 340-72.

Tuttle, Herbert D. Spring mounted baby bottle holder. 3,539,140, 11-10-70, Cl. 248-104.

Tuttle, Ralph W.; and Tuttle, Floyd W. Disc tiller. 3,543,865, 12-1-70, Cl. 172-288.

Tuttle, Robert N.: *See—*
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Tuttle, Robert S.: *See—*
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Tuttle, Wainwright, to Spati Industries, Inc. Leak testing method and apparatus. 3,494,178, 2-10-70, Cl. 73-49.2

Tuttle, Wainwright, to Spati Industries, Inc. Sensor. 3,544,745, 12-1-70, Cl. 200-83.

Tuwiner, Sidney B., to Lummus Company, The. Heat exchange apparatus. 3,507,318, 4-21-70, Cl. 165-1.

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Tuzson, John J., to Borg-Warner Corporation. Control valve. 3,496,962, 2-24-70, Cl. 137-504.

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Tveten, John L.; and Pettit, Rowland, to Esso Research and Engineering Company. Curing of adhesives used for joining opposed surfaces. 3,535,185, 10-20-70, Cl. 156-335.

Tveter, Richard S.; and Himmelstein, Sydney, to Himmelstein, S., and Company. Rotary transformer construction. 3,531,748, 9-29-70, Cl. 336-120.

Tveter, Richard S.; and Himmelstein, Sydney, to Himmelstein, S., and Company. Rotor structure. 3,531,749, 9-29-70, Cl. 336-120.

Tveteras, Martin; and Martensson, Heine, to Allmanna Svenska Elektriska Aktiebolaget. Control device for a filter circuit for a static inverter. 3,501,686, 3-17-70, Cl. 321-9.

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Tweedy of Burnley Limited: *See—*
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Tweit, Robert C., to Searle, G. D., & Co.3-(N-benzylthiocarbamoylthiomethyl)-6,7-dihydro-5H- imidazo[2,1-b]thiazolium chloride and congeners. 3,542,802, 11-24-70, Cl. 260-306.8

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Twells, Robert G.: *See—*
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Twells, Robert G., to PPG Industries, Inc. Durable metal oxide coated glass articles. 3,510,343, 5-5-70, Cl. 117-70.

Twellsiek, Friedel, to Schleicher Regelautomatik GmbH & Co., KG. Switching system for inductive loads. 3,551,751, 12-29-70, Cl. 317-123.

Twentieth Century Manufacturing Company: *See—*
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Jackman, Robert H., 3,514,732.

Twiflex Couplings Limited: *See—*
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Twilley, Ian C.; and Lazarus, Stanley D., to Allied Chemical Corporation. Solid state polymerization of tetracarboxylic acids dianhydrides and aromatic tetramines. 3,549,594, 12-22-70, Cl. 260-47.

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Twist, Walter; Lawrence, Leslie John; and Cordey, Tom Lloyd, to British Titan Products Company, Limited. TiO_2 precipitation process. 3,501,271, 3-17-70, Cl. 23-202.

Twyford, Robert H., to Mechanical Enterprises Incorporated. Adapter for positioning a character adding device on typewriting equipment. 3,537,565, 11-3-70, Cl. 197-180.

Twyford, Robert H., to Mechanical Enterprises Incorporated. Character adding device for typewriting equipment. 3,547,247, 12-15-70, Cl. 197-180.

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Tyer, Clarence C., Jr. Machine for cutting fiber glass boards to form ducts. 3,515,019, 6-2-70, Cl. 83-5.

Tyer, Clarence C., Jr. Fiber glass board cutting machine. 3,534,646, 10-20-70, Cl. 83-5.

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Orkney, James Bruce; Mijich, Joseph T.; Tyler, Donald W.; and Wood, Byron A.,3,509,649.

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Tyler, George L., Jr., to Research Corporation. Holographic storage system. 3,498,690, 3-3-70, Cl. 350-3.5

Tyler, Howard V., to United States of America, Navy. Rise time/fall time pulse sensor. 3,519,849, 7-7-70, Cl. 307-235.

Tyler, Hugh Jean, to Sybron Corporation. Instrument linkage with disengageable pivotal coupling. 3,517,955, 6-30-70, Cl. 287-101.

Tyler, Hugh Jean, to Robertshaw Controls Company. Electric igniter control circuitry. 3,539,872, 11-10-70, Cl. 317-79.

Tyler, Hugh J., to Robertshaw Controls Company. Electric ignition system. 3,540,817, 11-17-70, Cl. 431-66.

Tyler, Hugh J.; and Wolfe, Dennis H., to Robertshaw Controls Company. Control device having an improved one-piece mounting bracket. 3,518,601, 6-30-70, Cl. 337-327.

Tyler, Len A., to Bell & Howell Company. Development apparatus for continuous rotary electrostatographic apparatus. 3,517,993, 6-30-70, Cl. 355-15.

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Tyler, Marvin C., to Heath Company. Power amplifier having overload protection means. 3,512,097, 5-12-70, Cl. 330-14.

Tyler, Ransom, to Oilgear Company, The. Hydraulic machine. 3,508,466, 4-28-70, Cl. 91-472.

Tyler, Ronald Arthur, to Marconi Company Limited, The. Sampling circuit including a pair of gates for successively sampling signals. 3,513,331, 5-19-70, Cl. 307-241.

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Tyler, Tommy N., to Honeywell Inc. Ignition circuit for an arc discharge lamp. 3,510,725, 5-5-70, Cl. 315-183.

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Tyler, William R., to Aluminum Company of America. Fascia and flashing construction. 3,533,201, 10-13-70, Cl. 52-60.

Tyley, Leonard Richard, to Diamond H. Controls Limited. Power supply circuit controlled by heat-sensitive electrical resistance. 3,493,846, 2-3-70, Cl. 323-16.

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Tyran, Leo W., to Du Pont de Nemours, E. I., and Company. Petroleum wax compositions containing ethylene copolymers and high molecular weight polypropylene. 3,503,914, 3-31-70, Cl. 260-28.5

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Tyson, James E. Distribution means. 3,497,067, 2-24-70, Cl. 210-259.

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Tysver, Oliver J.; Tate, Oliver C.; and Prendergast, Richard E., to Continental Can Company, Inc. Rotary electrical joint. 3,546,655, 12-8-70, Cl. 339-8.

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Uchida, Hiromu; Yanabu, Osamu; and Kido, Keiichi, to Fuji Iron & Steel Co., Ltd. Scratch-resistant white-silver chromium plated steel plate. 3,505,040, 4-7-70, Cl. 29-195.

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Ullman, John E. Diagonal blade gunsight. 3,495,338, 2-17-70, Cl. 33-47.

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Ullman, John Gerson, to Du Pont de Nemours, E. I., and Company. Spinneret assembly for composite filaments. 3,538,544, 11-10-70, Cl. 18-8.

Ullman, Robert, to AMP Incorporated. Wire stripping. 3,527,124, 9-8-70, Cl. 81-9.51

Ullman, Robert; and Reem, Richard Ellwood, to AMP Incorporated. Terminal applicator having terminal bending means. 3,496,626, 2-24-70, Cl. 29-203.

Ullman, Terry S.; and Lecznar, Chester J., to Alloy Metals, Incorporated. Method and apparatus for producing metal powders. 3,501,802, 3-24-70, Cl. 18-2.5

Ullman, William L.; Baxter, James C.; Pearson, Arthur J.; Davis, Robert E.; and Hullhorst, William B., to Owens-Corning Fiberglas Corporation. Apparatus for making a tubular body of fibrous glass. 3,497,413, 2-24-70, Cl. 156-425.

Ullmann, Werner; and Donati, Franco, to A.G. fur industrielle Elektronik Agie. Adjustable pulse generator particularly for electro-erosion metal working. 3,492,593, 1-27-70, Cl. 328-59.

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Ullmann, Werner; and Farinelli, Robert, to A.G. fur industrielle Elektronik Agie. Electro-erosive working electrode having multiple individually insulated elements. 3,530,271, 9-22-70, Cl. 219-69.

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Ullrich, Hans J.; and MacDonald, Robert D., to United States Smelting, Refining and Mining Company. Hydrometallurgical process for the recovery of high pure copper values from copper and zinc bearing materials and for the incidental production of potassium sulfate. 3,523,787, 8-11-70, Cl. 75-103.

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Valdespino, Joe M., to Water Pollution Controls, Inc., mesne. Apparatus for collecting and containing oil on the surface of water. 3,532,219, 10-6-70, Cl. 210-242.

Valdespino, Joe M., to Tekmar Corporation. Incinerator toilet. 3,548,421, 12-22-70, Cl. 4-131.

Valdespino, Joe M. Fluid motor power plant. 3,548,593, 12-22-70, Cl. 60-54.5

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Valdsaar, Herbert, to Du Pont de Nemours, E. I., and Company. Stabilized zirconia containing niobia and calcium oxide. 3,522,064, 7-28-70, Cl. 106-57.

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Valfre, Cesare. Transistor negative impedance amplifier, stable in short circuit, particularly for telephone systems. 3,503,002, 3-24-70, Cl. 330-61.
Valfre, Cesare. Negative impedance repeater. 3,551,838, 12-29-70, Cl. 330-61.
Valiant, Arthur C., Jr. Scoring method. 3,491,463, 1-27-70, Cl. 35-48.
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vanElten, Gerrit Jan. Drum mixer for mixing wood wool with a binder. 3,544,077, 12-1-70, Cl. 259-3.

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Van Gaalen, Neil. Apparatus for sorting fish eggs. 3,517,807, 6-30-70, Cl. 209-73.

van Gastel, Leonard A., to Stichting Instituut voor Grafische Techniek TNO. Device for measuring the tack of a printing ink. 3,531,986, 10-6-70, Cl. 73-150.

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Van Geet, Anthony L. Temperature sensor for a nuclear magnetic resonance spectrometer system. 3,548,297, 12-15-70, Cl. 324-0.5

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van Ligten, Raoul F.; and Snitzer, Elias, to American Optical Company. Holographic recording system in which image resolution exceed maximum film resolution. 3,488,101, 1-6-70, Cl. 350-3.5
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Van Loo, William Julius, Jr.; and O'Brien, Samuel James, to American Cyanamid Company. Flat drying, wet wrinkle resistant finish for cellulosic textile materials. 3,508,860, 4-28-70, Cl. 8-120.
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Van Pool, Joe, to Phillips Petroleum Company. Catalytic cracking process. 3,542,668, 11-24-70, Cl. 208-67.
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Vartanian, Edwin S.; and Jarvis, Jay P., to Olin Mathieson Chemical Corporation. Firearm hammer. 3,531,886, 10-6-70, Cl. 42-69.

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Vasta, Joseph A., to Du Pont de Nemours, E. I., and Company. Paints containing certain trifluoroacetate salts. 3,529,983, 9-22-70, Cl. 106-178.

Vasterling, Paul F., to Hitco. Method for fabrication of ablative components. 3,532,784, 10-6-70, Cl. 264-152.

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Vaughn, Rudolph Marion. Self-aligning high-torque screw slot. 3,540,342, 11-17-70, Cl. 85-45.

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Veres, Edward W.; Draxler, Walter E.; Hanson, Herbert G.; and Poethig, Robert E., to Astro Controls, Inc., mesne. Air line filter. 3,507,098, 4-21-70, Cl. 55-219.

Veres, Frank, to Owens-Illinois, Inc. Lamp envelopes. 3,504,819, 4-7-70, Cl. 220-2.1

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Veret, Claude Marcel; and Surget, Jean Marcel, to Office National d'Etudes et de Recherches Aerospatiales. Interferometers. 3,551,054, 12-29-70, Cl. 356-106.

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Verge, Kenneth W.: *See—*
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Verges, Paul Francois; and Allanic, Jacques, to Societe Anonyme de Telecommunications. Tubular insulation forming machine for telecommunication conductors. 3,520,023, 7-14-70, Cl. 18-13.

Vergez, Jules P., Jr., to Texas Instruments, Incorporated. Variable speed induction motor controller with rotor frequency sensing. 3,529,223, 9-15-70, Cl. 318-230.

Vergne, Jean; Solaux, Leon; Robinet, Jean-Claude; and Lacroix, Philippe, to Charbonnages de France. Elastomer polymers derived from bicyclo 2.2.1 heptene-2. 3,546,183, 12-8-70, Cl. 260-78.4

Vergobbi, Robert W.; and Trusselle, William H., to Pneumatic Scale Corporation. Filling machine. 3,534,788, 10-20-70, Cl. 141-392.

Vergoz, John M., to North American Rockwell Corporation. Inertial reference attitude readout device. 3,491,453, 1-27-70, Cl. 33-204.

Verguson, Leo E. Tooling fixture. 3,526,397, 9-1-70, Cl. 269-7.

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Verhein, Donald; and Verhein, Gene D. Base for a collapsible container. 3,502,237, 3-24-70, Cl. 220-4.

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Verheyden, Luc; Klein, Klaus; and Cappelletti, Carlo, to European Atomic Energy Community Euratom. Window assembly for use in a system for quantitative determination of vapor concentrations in a carrier gas. 3,527,249, 9-8-70, Cl. 137-559.

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Verhille, Karel E.: *See—*
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Verhoef, Willem H., to Tektronix, Inc. Apparatus for generating functional waveforms of a rotating machine. 3,495,451, 2-17-70, Cl. 73-117.3

Verhoeven, Albert F., to Werner Lehara, Inc. Baking in rotatable rack ovens. 3,537,405, 11-3-70, Cl. 107-54.

Verhoeven, Albert F., to Werner Lehara, Inc. Dough depositing machine. 3,547,050, 12-15-70, Cl. 107-27.

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Verlinde, Ko J. Apparatus for operating a spark ignition engine on two fuels. 3,515,106, 6-2-70, Cl. 123-127.

Verlinden, Harry W., to Electrohome Limited. Methods and apparatus for determining the response of an amplifier. 3,510,789, 5-5-70, Cl. 330-2.

Verlinden, Harry W., to Electrohome Limited. Testing of decoders for F.M. receivers and test signal generators for use in such testing. 3,522,379, 7-28-70, Cl. 179-15.

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Vermehren, Carl Emil; and Vermehren, Thomas Ludvig Martin. Water-soluble corticoid compounds that decompose in plasma or tissue fluid with liberation of a free corticoid; and process of producing said compounds. 3,513,177, 5-19-70, Cl. 260-397.45

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Vermette, Floyd L. Package biological sewage treatment. 3,494,463, 2-10-70, Cl. 210-124.

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Vermeulen, Geert Jan, to N.V. Machinefabriek L. Te Strake. Yarn brake for twined yarns. 3,540,202, 11-17-70, Cl. 57-106.

Vermeulen, Gerardus Antonius Wilhelmus; and Gravesteyn, Jacobus Cornelis, to U.S. Philips Corporation. Cathode-ray tube. 3,511,678, 5-12-70, Cl. 117-33.5

Vermeulen, Gerardus Cornelis, to Hunter Douglas International Ltd. Ceiling lining, in particular for a suspended ceiling. 3,548,556, 12-22-70, Cl. 52-492.

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Vermeulen, Johannes C., to International Business Machines Corporation. Reference clock generator having unequal adjacent period intervals. 3,532,999, 10-6-70, Cl. 329-50.

Vermeulen, Johannes C., to International Business Machines Corporation. System for detection of digital data by integration. 3,548,327, 12-15-70, Cl. 329-50.

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Verreault, Joseph W. Accelerator release control for battery charging systems. 3,499,163, 3-3-70, Cl. 290-16.

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Vincent, Renic P.; and Randall, Billy V., to Pan American Petroleum Corporation. Blowout control valve for drilling well. 3,508,577, 4-28-70, Cl. 137-528.

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Vinicki, John, to Monsanto Company. Synthetic turf surface. 3,513,061, 5-19-70, Cl. 161-21.

Vinicki, John, to Monsanto Company. Synthetic turf surface. 3,513,062, 5-19-70, Cl. 161-21.

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Viollet, Gerard J.Machinist's locating tool. 3,512,261, 5-19-70, Cl. 33-169.

Viollet, Gerard J. Adjustable magnifier. 3,512,875, 5-19-70, Cl. 350-243.

Viollet, Gerard J. Compressed air vacuum and blow gun apparatus. 3,525,118, 8-25-70, Cl. 15-330.

Viollet, Gerard J.Machinist's extension range. 3,531,867, 10-6-70, Cl. 33-173.

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V.I.P. International Scientific Corporation: *See—*
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Vipperman, Willie Leon. Low oil pressure shut-down valve. 3,492,983, 2-3-70, Cl. 123-198.

Viren, Sigurd T.: *See—*
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Vireno, Lawrence O. Teeth cleansing and gum massaging device. 3,504,666, 4-7-70, Cl. 128-66.

Vireno, Lawrence O. Teeth cleaning device. 3,535,047, 10-20-70, Cl. 401-10.

Viret, Robert: *See—*
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Virginia Chemicals Inc.: *See—*
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Virkkala, Vilkko Antero. Cranes. 3,517,830, 6-30-70, Cl. 212-132.

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Rogovin, Zakhar Alexandrovich; and Virnik, Alexandr Davidovich,3,536,437.

Vironda, Italo D. Firearm recoil mechanism with an inertia member releasably held by a magnet. 3,492,749, 2-3-70, Cl. 42-74.

Virostek, Catherine A. Pad for surgical instruments or the like. 3,546,643, 12-8-70, Cl. 335-303.

Virros, Ismo Topi. Cardboard package of orthogonal prismatic shape. 3,502,257, 3-24-70, Cl. 229-51.

Virsberg, Lars-Goran, to Allmanna Svenska Elektriska Aktiebolaget. Means in electric insulators for keeping the upper side of the insulator plate free from deposits reducing the flashover strength. 3,532,804, 10-6-70, Cl. 174-139.

Virtanen, Valdemar. Razor blade stropper. 3,516,209, 6-23-70, Cl. 51-153.

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Bender, Charles E.; Parkinson, Martin C.; and Frazer, Douglas, 3,509,909.
Bender, Charles E.; Thompson, Taylor N.; and Fraser, Douglas S., 3,537,189.
Shapiro, Joseph; and Thompson, Taylor N., 3,494,139.

Virva, John. High-compliance speaker and enclosure combination. 3,523,589, 8-11-70, Cl. 181-31.

Vis, Larry E., to Brobst Company, and Soderholm Manufacturing Co., Inc. Front fenders for wide front tractors. 3,497,237, 2-24-70, Cl. 280-152.

Visani, Francesco: *See—*
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Vischulis, George, to Interlake Steel Corporation. Continuous casting apparatus with a molten metal level control. 3,519,060, 7-7-70, Cl. 164-155.

Viscovich, Paul W.; and Dunnavant, Allan A., to Westinghouse Electric Corporation. Vapor heated tube and shell heat exchanger system and method of purging. 3,518,830, 7-7-70, Cl. 60-73.

Vish Chimiko-Technologitcheski Institut: *See—*
Natov, Miltcho Angelov; Evtimov, Evtim Nikolov; and Bankov, Stefan Todorov, 3,504,400.

Vish Machinno-Elektrotechnitcheski Institut: *See—*
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Vish Machino-Elektrotechnitcheski Institut: *See—*
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Visman, Jan; and Sims, Lawson S., to Canadian Patents and Development Limited. Apparatus for separating aqueous suspensions of solid particles. 3,487,923, 1-6-70, Cl. 209-3.

Visman, Jan; and Sims, Lawson S., to Canadian Patents and Development Limited. Mixing apparatus. 3,511,480, 5-12-70, Cl. 259-60.

Visnovsky, Lubomir, to Monsanto Europe S.A. Process for producing a nylon-coated leather-like product. 3,518,103, 6-30-70, Cl. 117-11.

Visschedijk, Gerhardus Bernardus, to N.V. Hollandse Signaalapparaten. Semi-permanent magnetic core storage matrices. 3,508,214, 4-21-70, Cl. 340-174.

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Muijderman, Everhardus Albertus; Visscher, Johannes Mattheus; and Van Der Hilst, Jan,3,525,987.

Visser, Age T., to United States of America, Atomic Energy Commission. Meter for measuring RMS values of pulsed current signals. 3,521,165, 7-21-70, Cl. 324-106.

Visser, Christiaan, deceased (by Batenburg, B. M. A.; executor), to Vrendenberg, C. J., and N.V. Vereenigde Touwfabrieken. Soil protection mats. 3,517,514, 6-30-70, Cl. 61-38.

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Vissers, Herbert, to Landbouwwerktuigen- en Machinefabriek H. Vissers N.V. Harvesting device. 3,520,371, 7-14-70, Cl. 171-106.

Vissers, Herbert, to Landbouwwerktuigen-en Machinefabriek H. Vissers N.V. Machines for cultivating the soil. 3,530,945, 9-29-70, Cl. 172-95.

Vistain, James E., Jr.; and Arrington, William L., to Admiral Corporation. Portable television receiver. 3,489,852, 1-13-70, Cl. 178-7.9

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Seidel, Michael C.; Viste, Kenneth L.; and Yih, Roy Y.,3,503,986.
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Vit, Jaroslav, 1/2 to National Patent Development Corporation. Vibrator drive device. 3,548,225, 12-15-70, Cl. 310-38.

Vit, Rudy, to Sicard, Inc. Apparatus for harvesting trees. 3,498,347, 3-3-70, Cl. 144-3.

Vita, Lawrence. Automatic vehicle parking system. 3,497,087, 2-24-70, Cl. 214-16.1

Vitalini, Alberto. Building having telescopic section. 3,512,315, 5-19-70, Cl. 52-67.

Vitaloni, Giovanni: *See—*
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Vitaloni, Mario; and Vitaloni, Giovanni. Adjustable side rear view mirror for motor vehicles. 3,512,746, 5-19-70, Cl. 248-483.

Vitaloni, Massimo, to VIF-Vitaloni S.a.s. di Vitaloni Mario, Giovanni &. Switching control apparatus for vehicle direction indicators and main lights with oscillatory disc contacts. 3,530,266, 9-22-70, Cl. 200-61.34

Vitcha, Edward T.; Hooker, Leslie A.; and Lauder, Richard P., to TRW Inc. Forged valves for cast slugs. 3,536,053, 10-27-70, Cl. 123-188.

Vitek, Edmund J., to Westinghouse Electric Corporation. Low power electrostatic deflection system. 3,543,081, 11-24-70, Cl. 315-29.

Vitek, Robert, to Stollack Aktiengesellschaft Guntramsdorf, mesne. Process for the electrophoretic preparation of corrosion resistant coatings. 3,513,083, 5-19-70, Cl. 204-181.

Vitez, Bela, to Allis-Chalmers Manufacturing Company. Safety device for jaw crusher. 3,511,444, 5-12-70, Cl. 241-32.

Vitins, Janis, to Aktiengesellschaft Brown, Boveri & Cie. Compressed gas actutated circuit breaker. 3,513,276, 5-19-70, Cl. 200-148.

Vitkus, Paul L., to Norton Research Corporation, mesne. Method for masking electroluminescent diode. 3,522,043, 7-28-70, Cl. 96-35.1

Vitkus, Paul L., to National Research Corporation. Electroluminescent diode having a limited junction area and a photographic device utilizing the same. 3,534,179, 10-13-70, Cl. 179-100.3

Vitkus, Paul L.: *See—*
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Vitro Corporation of America: *See—*
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Levy, Maurice E., 3,512,030.
Simon, Donald R.; and Guerrieri, Angelo J., 3,534,213.
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Vitt, George G., Jr., to Hughes Aircraft Company. Three-dimensional terrain mapping system. 3,546,375, 12-8-70, Cl. 178-6.5

Vitta Corporation: *See—*
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Vittori, George. Carrying device. 3,488,022, 1-6-70, Cl. 248-152.

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Vittoz, Eric-Andre, to Centre Electronique Horloger S.A. Frequency dividing circuit, with semiconductors. 3,505,536, 4-7-70, Cl. 307-225.

Vittoz, Eric-Andre, to Centre Electronique Horloger S.A. Frequency stabilized multivibrator. 3,526,853, 9-1-70, Cl. 331-111.

Vittoz, Eric: *See—*
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Viveiros, Henry. Hook mechanism for capturing fish and other animals. 3,492,752, 2-3-70, Cl. 43-36.

Viventi, Richard V., to General Electric Company. Heterocyclic compounds containing hetero sulfur and silicon atoms. 3,506,699, 4-14-70, Cl. 260-448.8

Viventi, Richard V., to General Electric Company. Acyloxy mercury-substituted organosilicon compounds. 3,532,726, 10-6-70, Cl. 260-431.

Viventi, Richard V., to General Electric Company. Hydrolyzable organosilanes derived from silicon hydrogen compounds and trimethylol alkane derivatives. 3,538,137, 11-3-70, Cl. 260-448.2

Vives, Van C., to Phillips Petroleum Company. Dehydrohalogenation process. 3,523,982, 8-11-70, Cl. 260-677.

Vivian, Frank H., to Sun Shipbuilding and Dry Dock Company, mesne. Trailer support device with camming means. 3,506,230, 4-14-70, Cl. 248-119.

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Vizuete, Bennie; and North, Richard J., to Texaco Inc. Self sealing pressure plug. 3,499,469, 3-10-70, Cl. 138-90.

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Vlaminck, Leopold G., to Automatic Electric Laboratories, Inc. Intercommunicating telephone with secrecy arrangement. 3,524,939, 8-18-70, Cl. 179-17.

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Vliegenthardt, Arie, to Hellige, Fritz, & Co. G.m.b.H. Portable antenna. 3,523,296, 8-4-70, Cl. 343-718.

Vlier, Blaine Hempstead, to Talcott, James, Inc., mesne. Ink mist prevention system using pointed electrode members. 3,515,064, 6-2-70, Cl. 101-349.

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Vlock, Mark. Film developing magazine. 3,543,668, 12-1-70, Cl. 95-100.

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Vockenhuber, Karl; and Drasch, Josef, said Drasch assor to Hauser, Raimund. Cinematographic equipment, especially a substandard format film camera. 3,519,340, 7-7-70, Cl. 352-72.

Vodicka, Vincent, to General Electric Company. Method of manufacturing electroluminescent display devices. 3,514,825, 6-2-70, Cl. 29-25.18

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Voegtlen, Dieter; Brandt, Fritz; and Bruninghaus, Karl, to Siemens Aktiengesellschaft. System and process for supervising signal lines. 3,535,462, 10-20-70, Cl. 179-18.
Schlichte, Max; and Voegtlen, Dieter,3,493,683.
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Voeks, Elton L.; and Barnowsky, Arwed J. Self-propelled driving and steering truck for shopping carts. 3,524,512, 8-18-70, Cl. 180-14.

Voelcker, Herbert B., Jr., to Research Corporation. Asynchronous single sideband radio reception systems. 3,508,155, 4-21-70, Cl. 325-329.

Voelcker, Herbert B., Jr., to Research Corporation. Method and apparatus for interpolation and conversion of signals specified by real and complex zeros. 3,510,640, 5-5-70, Cl. 235-197.

Voelcker, Herbert B., Jr., to Research Corporation. Binary transversal filter systems. 3,543,009, 11-24-70, Cl. 235-150.4

Voelcker, Rudolph W.: *See—*
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Voelker, Marvin W., to Great Lakes Carbon Corporation. Connections between electrical conductors and carbon bodies and method of making same. 3,536,460, 10-27-70, Cl. 29-195.

Voelker, Milton H., to Consolidated Papers, Inc. Method and apparatus for testing printing paper for blistering. 3,494,173, 2-10-70, Cl. 73-15.

Voelker, Walter D., to Bischoff Chemical Corporation. Injection molding nozzle support. 3,512,216, 5-19-70, Cl. 18-30.

Voelskow, Peter, to Maschienefabrik Hombak KG. Apparatus for producing flat wood fragments. 3,513,890, 5-26-70, Cl. 144-3.

Voeltzel, Jacques: *See—*
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Voelz, Frederick L., to Sinclair Research, Inc. Process and apparatus for determining the cure characteristics of materials. 3,524,983, 8-18-70, Cl. 250-43.5

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Voet, Andries; and Lamond, Trevor George, to Huber, J. M., Corporation. Method of producing spherical pellets of activated carbon. 3,533,961, 10-13-70, Cl. 252-421.

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Voet, Andries; and MacDonald, Gene William, to Huber, J. M., Corporation. Dispersible carbon black briquettes. 3,498,814, 3-3-70, Cl. 106-307.

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Voetter, Ulrich E., to Schlumberger Technology Corporation. Well completion methods and apparatus. 3,498,377, 3-3-70, Cl. 166-250.

Voetter, Ulrich E., to Schlumberger Technology Corporation. Apparatus for well completion. 3,507,340, 4-21-70, Cl. 175-4.52

Voetter, Ulrich E., to Schlumberger Technology Corporation. Well completion apparatus. 3,542,141, 11-24-70, Cl. 175-4.52

Voevodsky, John. Intervehicular communications system including deceleration warning system. 3,528,056, 9-8-70, Cl. 340-72.

Vofsi, David: *See—*
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Vogel, Dieter. Apparatus for temporary storing and exhibition of carpets. 3,495,715, 2-17-70, Cl. 211-1.5

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Vogel, Eric T., to Concast Incorporated. Continuous-casting mold. 3,528,485, 9-15-70, Cl. 164-273.

Vogel, George J., to United States of America, Air Force. Time scanned array radar. 3,518,669, 6-30-70, Cl. 343-16.

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Vogel, James L. Frame member for an outdoor fireplace. 3,548,803, 12-22-70, Cl. 126-25.

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Vogel, John V., to Shell Oil Company. Method for producing shale oil from an oil shale formation. 3,513,914, 5-26-70, Cl. 166-271.

Vogel, Karl, to Diehl. Operational keyboard system. 3,523,184, 8-4-70, Cl. 235-145.

Vogel, Ludwig: *See—*
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Vogel, Paul W., to Lubrizol Corporation, The. Heterocyclic nitrogen-sulfur compositions and lubricants containing them. 3,519,564, 7-7-70, Cl. 252-47.5

Vogel, Paul W., to Lubrizol Corporation, The. Lubricating oil composition. 3,533,945, 10-13-70, Cl. 252-49.6

Vogel, Raimund W. Ski boot. 3,530,594, 9-29-70, Cl. 36-2.5

Vogel, Raimund W. Boot and more particularly ski boot. 3,530,595, 9-29-70, Cl. 36-2.5

Vogel, Robert E.; Hermanson, Bernard A.; and Kuykendall, Earl G., to Dual Jet Refrigeration Co. Control system for refrigerated enclosures. 3,496,732, 2-24-70, Cl. 62-80.

Vogel, Robert; and Korsch, Alfred, to Gerber & Co., G.m.b.H. Device for carrying looped textiles. 3,518,846, 7-7-70, Cl. 68-5.

Vogel, Seymour, to United States of America, Navy. Aduio system with modified output. 3,518,566, 6-30-70, Cl. 330-144.

Vogel, Siegfried F., to International Business Machines Corporation. Pyrolytic graphite support for lanthanum hexaboride cathode emitter. 3,532,923, 10-6-70, Cl. 313-341.

Vogel, Uriel. System for the detection of charged particles. 3,492,480, 1-27-70, Cl. 250-83.3

Vogel, Walter, to Bergwerksverband GmbH. Classification by flotation. 3,539,000, 11-10-70, Cl. 209-3.

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Vogeli, Ernst, to Sulzer Brothers Limited. Valve. 3,503,585, 3-31-70, Cl. 251-121.

Vogelmann, Friedrich. Roller for handling heavy hot materials. 3,517,426, 6-30-70, Cl. 29-125.

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Vogelsang, Thomas H., to General Electric Company. Electromagnetic holding mechanism. 3,526,863, 9-1-70, Cl. 335-186.

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Von den Hoff, Johan P. H., to Stamicarbon N.V.Preparation of γ-caprolactone. 3,541,113, 11-17-70, Cl. 260-343.

Von den Hoff, Johan P. H.; and Vermijs, Winfried J. W., to Stamicarbon N.V.Process of preparing α-amino-γ-lactams. 3,536,701, 10-27-70, Cl. 260-239.3

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Von Fange, Eugene K., to General Electric Company. Telescoping VHF-UHF antenna for a television receiver. 3,522,608, 8-4-70, Cl. 343-702.

VonFange, Eugene K.; and Ghaem-Maghami, Sanjar, to General Electric Company. Wafer construction for a switch tuner. 3,536,877, 10-27-70, Cl. 200-166.

Von Fange, Eugene K.; and Ghaem-Maghami, Sanjar, to General Electric Company. Isolation means for a switch tuner wafer. 3,525,824, 8-25-70, Cl. 200-11.

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Von Heidenstam, Erik Johan. Apparatus for erecting multistorey buildings. 3,522,931, 8-4-70, Cl. 254-89.

Von Herbulis, Carl L. Golf cart receptacle. 3,528,591, 9-15-70, Cl. 224-42.46

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von Hippel, Eric A., to Graphic Sciences, Inc. Electronic stylus feed mechanism. 3,541,579, 11-17-70, Cl. 346-139.

von Hippel, Hans Joachim. Underload advanceable mine roof support. 3,494,135, 2-10-70, Cl. 61-45.

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Von Hirsch, Hubert. Novel process for preparation of enamines. 3,530,120, 9-22-70, Cl. 260-240.

von Hofe, George W., to New Jersey Machine Corporation. Method of and apparatus for printing and feeding labels in a continuous web, and for verifying and cutting individual labels therefrom for application to articles. 3,536,550, 10-27-70, Cl. 156-64.

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Von Hornstein, Wolf Freiherr; and Liebl, Albert. Tape tension control system with sensing levers, particularly for magnetic sound recorders. 3,549,105, 12-22-70, Cl. 242-210.

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Von Strandtmann, Maximilian; Cohen, Marvin P.; and Shavel, John, Jr., to Warner-Lambert Pharmaceutical Company. Benzopyranquinolinol derivatives and process for their production. 3,518,273, 6-30-70, Cl. 260-289.

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von Strandtmann, Max; Cohen, Marvin P.; and Shavel, John, Jr., to Warner-Lambert Pharmaceutical Company. Pyrano[3,2-i]quinolizine and process for the production. 3,518,258, 6-30-70, Cl. 260-240.

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Von Struve, Henry C., III, to Martin-Marietta Corporation. Ground track alignment sensing system. 3,545,268, 12-8-70, Cl. 73-178.

Von Sturm, Ferdinand; and Thieleking, Annie, to Siemens Aktiengesellschaft. Method of increasing the activity and stability of Raney-type catalysts. 3,525,702, 8-25-70, Cl. 252-472.

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Von Wolff, Herbert H.; and Bourassa, Hugh A., to Acme-Cleveland Corporation. Foundry machine with swinging door for core removal. 3,520,347, 7-14-70, Cl. 164-183.

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Voorhis, Harold W., to Continental Can Company, Inc. Machine for closing egg cartons. 3,550,352, 12-29-70, Cl. 53-376.

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Vordahl, Milton B., to Crucible Steel Company of America. Lightweight structural articles. 3,508,599, 4-28-70, Cl. 164-81.

Vorderbrugge, Hermann, to Artos, Dr. Ing., Meier-Windhorst K.G. Process for the singeing and liquid treatment of textile material. 3,524,233, 8-18-70, Cl. 26-3.

Vore, Herbert G., to Improved Machinery, Inc. Method of forming a joint between an oriented and nonoriented plastic. 3,540,965, 11-17-70, Cl. 156-306.

Vore, Herbert G.; and Bardsley, Donald E., to Improved Machinery Inc. Backing wire for rotary drum filters. 3,515,281, 6-2-70, Cl. 210-402.

Vore, Herbert G.; Bardsley, Donald E.; and Owler, Robert N., to Improved Machinery Inc. Portable injection molding machine. 3,540,082, 11-17-70, Cl. 18-30.

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Vorie, Gilbert C., to Cornell Aeronautical Laboratory, Inc. Method and apparatus for obtaining azimuth and range from a scanning continuous wave radar. 3,509,566, 4-28-70, Cl. 343-10.

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Waddle, Craig C.; Scott, John C.; and Harris, Robert K., to Mintech Corporation. Discharge grate mechanism for shaft kiln. 3,510,114, 5-5-70, Cl. 263-29.
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Waschek, Arvid Gayle: *See—*
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Waschulewski, Hans-Georg; Baumers, Hans; and Lambertz, Hans Reinhart, to Losenhausen Maschinenbau Aktiengesellschaft. Vibration generators. 3,505,885, 4-14-70, Cl. 74-61.
Waschulewski, Hans-Georg: *See—*
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Wasco, Anthony, Jr.: *See—*
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Wascon Systems, Incorporated: *See—*
Combs, William H.; Craig, Sam N.; and Warner, Ellis R., Jr., 3,489,356.

Waseleski, Joseph W., Jr., to Texas Instruments, Incorporated. Heated windshield wiper and blade therefor. 3,489,884, 1-13-70, Cl. 219s522.
Waseleski, Joseph W., Jr.; and Buiting, Francis P., to Texas Instruments, Incorporated. Control system and actuator used therein. 3,500,634, 3-17-70, Cl. 60-23.
Waseleski, Joseph W., Jr.; Buiting, Francis P.; and McBride, Lyle E., Jr., to Texas Instruments, Incorporated. Electric motor protection sensor. 3,521,212, 7-21-70, Cl. 338-25.
Waseleski, Joseph W., Jr.: *See—*
Buiting, Francis P.; and Waseleski, Joseph W., Jr.,3,501,619.
Wasem, Karl; Scharhag, Wilhelm; Konig, Willi; and Reese, Johannes, to Chemische Werke Albert. Epoxy resin compositions comprising epoxy resins together with (A) an adduct of an epoxy resin and a polyamine and (B) a phenol-aldehyde resin and/or certain esterification products or resinic acids. 3,496,130, 2-17-70, Cl. 260-26.
Waseman, William A., to Westinghouse Electric Corporation. Washing machine with clothes weigher. 3,522,855, 8-4-70, Cl. 177-144.
Wasemann, William A., to Westinghouse Electric Corporation. Clothes washing machine apparatus. 3,543,541, 12-1-70, Cl. 68-18.
Wasemann, William A., to Westinghouse Electric Corporation. Drive hub structure for washing machine agitator. 3,548,617, 12-22-70, Cl. 68-133.
Waser, Rudolf; and Ott, Hans, to Eidophor A.G. Apparatus for reproducing television pictures. 3,544,964, 12-1-70, Cl. 350-161.
Washall, Thomas A.; Melpolder, Frank W.; and Leum, Leonard N., to Atlantic Richfield Company. Fractionation of monochloroparaffins. 3,541,164, 11-17-70, Cl. 260-652.
Washburn, Clayton A. Error correction system for cathode-ray tube information display. 3,497,758, 2-24-70, Cl. 315-11.
Washburn, Clayton A. Cathode-ray tube apparatus. 3,497,761, 2-24-70, Cl. 315-21.
Washburn, Ernest A., to Sybron Corporation. Switching circuit with hysteresis. 3,512,010, 5-12-70, Cl. 307-218.
Washburn, Ernest L., to Keebler Company. Composition for producing molded high sugar containers for frozen comestibles. 3,541,587, 11-17-70, Cl. 99-88.
Washburn, John M., to Merrow Machine Company, The. Thread cutting mechanism for sewing machines. 3,494,315, 2-10-70, Cl. 112-252.
Washburn, Omar J., Jr.; and Gunn, Joel R., deceased (by Washburn, Omar J.; administrator). Portable lifting, holding and lowering device. 3,534,880, 10-20-70, Cl. 214-390.
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Washburn, Robert M.; and Karle, Dennis W., to McDonnell Douglas Corporation, mesne. Phosphorus-nitrogen polymers and process. 3,546,141, 12-8-70, Cl. 260-2.
Washburn, Wirt E., to Bausch & Lomb Incorporated. Wear resistant encapsulated fiber optical assembly. 3,542,451, 11-24-70, Cl. 350-96.
Washecheck, Paul H.: *See—*
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Washindrive International Corporation: *See—*
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Boyd, John Allison; and Boyd, Donald E., 3,495,555.
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Washio, Kanichi; Fukugami, Goro; and Aizawa, Tsuneo, to Kabushiki-Kaisha Amada. Guiding and vibration damping device for a saw blade in a band-sawing machine. 3,530,752, 9-29-70, Cl. 83-201.15
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Washizuka, Isamu; Hanahara, Hitoshi; and Yoshida, Kunio, to Hayakawa Denki Kogyo Kabushiki Kaisha. N-nary counter. 3,513,329, 5-19-70, Cl. 307-223.
Washizuka, Isamu; and Yoshida, Kunio, to Hayakawa Denki Kogyo Kabushiki Kaisha. Information control system. 3,523,284, 8-4-70, Cl. 340-173.
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Wasielewski, John Paul; and McAtee, William L., to Pranor Industries, Inc. Pulse accumulating watthour measuring system. 3,517,311, 6-23-70, Cl. 324-142.
Wasileski, Norbert J., to General Electric Company. Manually operable handle mechanism for panel mounted devices. 3,496,320, 2-17-70, Cl. 200-172.
Wasilewski, Henry L.; and De Witt, Thomas K., said Wasilewski assor. to Littons Systems, Inc. Precision depth recorder. 3,500,433, 3-10-70, Cl. 346-35.
Wasilik, John H., to United States of America, Army. Variable surface-wave delay line. 3,516,027, 6-2-70, Cl. 333-30.
Waska, Franklyn L., to Beckman Instruments, Inc. Differential-port sphere for absolute diffuse spectral reflectance measurements and method. 3,545,871, 12-8-70, Cl. 356-236.
Waskowsky, Carl A. H. M., to Patinvest, Patent und Investment A.G. Snap switch. 3,549,838, 12-22-70, Cl. 200-83.
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Wasmer, Darwin A., to Kelsey-Hayes Company. Dust seal for brake piston. 3,528,301, 9-15-70, Cl. 74-18.2
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Wasson, Burton Kendall; and Share, Nathan Norman, to Merck & Co., Inc. 1-Phenoxy-3-morpholino alkylamino-2-propanols. 3,524,851, 8-18-70, Cl. 260-247.5
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Watabe, Kaname; Horimoto, Kohei; Muramatsu, Masahiro; and Ito, Mamoru, to Teijin Limited. Apparatus for winding a yarn. 3,543,503, 12-1-70, Cl. 57-75.
Watanabe, Akio; Imai, Masayoshi; Murata, Yasuzo; Hyodo, Hiroshi; and Maruya, Takayuki, to Pilot Man-Nen-Nen-Hitsu Kabushiki Kaisha. Pressure-sensitive copying papers. 3,535,139, 10-20-70, Cl. 117-36.2
Watanabe, Akira; and Saeki, Kunio, to Toyo Glass Kabushiki Kaisha. Measuring system for the volume and deformation of a bottle or bottles. 3,494,185, 2-10-70, Cl. 73-149.
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Watanabe, Hideo; and Gafford, Robert D., to Beckman Instruments, Inc. Electrode for making in vivo ionic measurements of venous blood. 3,530,849, 9-29-70, Cl. 128-2.

Watanabe, Hideo; and Kusunoki, Yushi, to TDK Electronics Co., Ltd. Ferroelectric ceramic. 3,544,469, 12-1-70, Cl. 252-62.9

Watanabe, Hideo; and Leonard, John E., to Beckman Instruments, Inc. Method for in vivo potentiometric measurements. 3,498,289, 3-3-70, Cl. 128-2.1

Watanabe, Hideo; and Midori, Yoshiaki, to TDK Electronics Co., Ltd. Piezoelectric ceramic material. 3,532,628, 10-6-70, Cl. 252-62.9

Watanabe, Hikoitsu; and Genma, Sanji. Helical earth. 3,548,069, 12-15-70, Cl. 174-7.

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Watanabe, Hiroo; Yamamoto, Masatake; and Endo, Tadao, to Omron Tateisi Electronics Co. Local traffic signal controller. 3,500,309, 3-10-70, Cl. 340-37.

Watanabe, Hiroshi, to Kogyo Gomu Company Limited. Panel for curtain walls and method of jointing corners of the same. 3,526,071, 9-1-70, Cl. 52-403.

Watanabe, Hiroshi: *See*—
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Watanabe, Jun; Hosoi, Susumu; Kuwazaki, Masahiro; Sawai, Tadashi; and Ueno, Hirota, to Matsushita Electric Industrial Co., Ltd. Dry cell. 3,513,033, 5-19-70, Cl. 136-107.

Watanabe, Katsuo. Preparation of Kraft process liquor from waste soda liquor from petroleum industries. 3,514,371, 5-26-70, Cl. 162-82.

Watanabe, Kazuaki; Ono, Hideo; Ushiyama, Kinji; and Shinkai, Noboru, to Sumitomo Kikai Kogyo Kabushiki Kaisha, and Fuji Shashin Film Kabushiki Kaisha. Silver recovery process. 3,537,986, 11-3-70, Cl. 210-15.

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Watanabe, Kazuo; and Matsui, Akira, to Sanyo Electric Co., Ltd. Chassis construction for television receivers using circuit boards. 3,531,723, 9-29-70, Cl. 325-355.

Watanabe, Kazuo; and Tanmatsu, Katsuo, to Sanyo Electric Co., Ltd. Loud speaker apparatus with audio frequency amplifier mounted thereon. 3,499,988, 3-10-70, Cl. 179-1.

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Watanabe, Makoto; Mukai, Hisakazu; and Kataoka, Keisuke, to Nippon Telegraph and Telephone Public Corporation. High speed semiconductor switching circuitry. 3,510,685, 5-5-70, Cl. 307-248.

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Watanabe, Masanori, to Katsuragawa Denki Kabushiki Kaisha. Optical scanning method for copying machines. 3,497,298, 2-24-70, Cl. 355-47.

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Watanabe, Shigeru; Hirano, Chikafusa; and Miura, Takeo, to Hitachi, Ltd. Pen-tracking system in cathode-ray tube display equipment. 3,506,875, 4-14-70, Cl. 315-12.

Watanabe, Shigeru; Kobayashi, Teruo; and Kubotera, Kikuo, to Fuji Shashin Film Kabushiki Kaisha. Photographic light-sensitive materials containing mordanted oxonol dyes. 3,512,983, 5-19-70, Cl. 96-84.

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Watanabe, Toshiro, to Sony Corporation. Color video signal generating apparatus. 3,502,799, 3-24-70, Cl. 178-5.4

Watanabe, Toshiro, to Sony Corporation. Color video signal generating apparatus. 3,524,014, 8-11-70, Cl. 178-5.4

Watanabe, Toshiro, to Sony Corporation. Color video signal generating apparatus. 3,526,706, 9-1-70, Cl. 178-5.4

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Watanabe, Yasuaki; Ohtsu, Tadanori; and Nagano, Masahiko, to Victor Company of Japan, Limited. Field sequential color video signal recording and reproducing system with color field synchronizing signal. 3,499,974, 3-10-70, Cl. 178-5.2

Watanabe, Yasuaki; Ohtsu, Tadayasu; Nagano, Masahiko; and Aoki, Yozo, to Victor Company of Japan, Limited. High definition magnetic tape recorder for video signals. 3,535,440, 10-20-70, Cl. 178-6.6

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Watanabe, Yoshiyuki; and Kinoshita, Koichi, to Katsuragawa Denki Kabushiki Kaisha. Method of making electrographs wherein the resultant electrostatic image is not effected by further light exposure. 3,536,483, 10-27-70, Cl. 96-1.

Watari, Masaharu. Typewriter for braille dots. 3,534,846, 10-20-70, Cl. 197-6.1

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Waterbury, Nelson J., 30% to Dupont, Nicholas R., 10% to Matonis, John J., 20% to Haskett, Barry F., and 10% to Martin, Joan Hixon, mesne. Tampon or similar sanitary napkin containing Vitamin A. 3,521,637, 7-28-70, Cl. 128-270.

Waterbury, Nelson J., 70% to Haskett, F. Barry 15% to Martin, Joan Hixon and 15% to DuPont, Nicholas R. Smoking tobacco charge incorporating encapsulated Vitamin A and mode of introduction. 3,525,582, 8-25-70, Cl. 131-9.

Waterdome Corporation: *See*—
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Waterloo Industries: *See*—
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Waterkoo, John W., Sr. Moving coil-type electrical measuring instrument having multiple field poles each provided with an adjustable rotary magnet and a vernier slug for calibration of the instrument at multiple points on the scale. 3,500,203, 3-10-70, Cl. 324-151.

Waterman, Logan C., to Petrolite Corporation. Method and apparatus for separating mixtures of gas, water and oil. 3,528,222, 9-15-70, Cl. 55-175.

Waterman, Neil S., to Atlantic Design & Development Corporation. Dispensing container with pivoting cover. 3,515,314, 6-2-70, Cl. 222-189.

Waterman, Neil S., to Atlantic Design & Development Corporation. Liquid container dispensing closures. 3,542,256, 11-24-70, Cl. 222-484.

Waterman, Neil S.; and Borden, Philip H., to Perma-Sharp Manufacturing Corporation. Dispensing package container for new and used razor blades. 3,543,918, 12-1-70, Cl. 206-16.

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Waters, James L., to Waters Associates, Inc. Liquid chromatograph. 3,522,725, 8-4-70, Cl. 73-61.1

Waters, James L., to Waters Associates, Inc. Chromatographic separation system. 3,537,585, 11-3-70, Cl. 210-198.

Waters, James L. Differential refractometers. 3,539,263, 11-10-70, Cl. 356-130.

Waters, John Murray; Lucas, John; and Davies, Gwyn Tudor, to Tempered Spring Company Limited, The. Rail fastenings. 3,515,347, 6-2-70, Cl. 238-310.

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Waters, Michael A.: *See*—
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Waters, Michael F.; Spry, Roy J.; Munn, Vaughn K.; Gunderman, Tracy B.; and Wood, Harold F., said Waters assor. to Digimetrics, Inc. Sports computer system. 3,546,696, 12-8-70, Cl. 343-6.5

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Waters, Walter George; and Wight, David Robert, to Eastman Kodak Company. Coating method and apparatus for coating layers of liquid material onto a support. 3,513,017, 5-19-70, Cl. 117-94.

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Waters, William A. Air conditioned helmet. 3,548,415, 12-22-70, Cl. 2-171.3

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Watkins, David Vaughan. Line dividing conveyor. 3,500,983, 3-17-70, Cl. 198-31.

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Watkins, Glen A. Cactus processing apparatus. 3,542,102, 11-24-70, Cl. 146-107.

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Watkins, James F., to Cryo-Cool Corporation. Refrigeration system employing liquefied gas. 3,491,547, 1-27-70, Cl. 62-217.

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Watkins, Lucius D., to Outboard Marine Corporation. Steering actuated banking mechanism for snow vehicle. 3,550,706, 12-29-70, Cl. 180-5.

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Wayne, Robert A., to Avtron Manufacturing Inc. Magnetic-electric pickup for toothed wheels and the like. 3,492,518, 1-27-70, Cl. 310-155.
Wayne, Ronald E., 'Automatic' Sprinkler Corporation of America. Article transfer apparatus. 3,529,732, 9-22-70, Cl. 214-6.
Wayne, Truman B. Milling of cereal grains and processing of products derived therefrom. 3,519,431, 7-7-70, Cl. 99-80.
Wayne, William C., Jr., to Baldwin, D. H., Company. Electrical organ. 3,505,462, 4-7-70, Cl. 84-1.04
Wayne, William C., Jr., to Baldwin, D. H., Company. Frequency changer employing opto-electronics. 3,516,318, 6-23-70, Cl. 84-1.01
Wayner Electric Corporation: *See—*
Falk, Edward J., 3,507,365.
Waythomas, Donald J.: *See—*
Giambra, Santo; and Waythomas, Donald J.,3,533,987.
Waznys, Peter J.; and Garrido, John A., to Collectron Corporation. Wear limiting adjustable brush means for a rotary drum encoder. 3,504,146, 3-31-70, Cl. 200-166.
Waznys, Peter J.; and Garrido, John A., to Collectron Corporation. Multi-speed encoder. 3,535,476, 10-20-70, Cl. 200-8.
WCS Sale, Inc.: *See—*
Hawley, Lee E., 3,533,246.
Weadock, Richard, Jr., to General Motors Corporation. Electromagnetic forming apparatus. 3,541,823, 11-24-70, Cl. 72-56.
Weagant, William D., to Sigma Industries, Inc. T-tap insulator. 3,536,822, 10-27-70, Cl. 174-138.
Wean Industries Inc.: *See—*
Bortmas, Howard J., 3,515,327.
Miller, Paul W., 3,519,267.
Wear, George H.; and Perrin, Jack T. Epoxide acrylate grafts of thermoplastic polymers. 3,519,702, 7-7-70, Cl. 260-884.
Wear, Robert L., to Minnesota Mining and Manufacturing Company. Film-forming aromatic polyketoester polymers and precursors. 3,531,435, 9-29-70, Cl. 260-47.
Wearden, Charles G.: *See—*
Swander, Kenneth D., Jr.; and Wearden, Charles G.,3,508,470.
Swander, Kenneth D., Jr.; and Wearden, Charles G.,3,548,720.
Weasel, George E., Jr.; and Weimer, Harold W., to Tem-Cole, Inc. Multiple row crop harvesting machine. 3,548,951, 12-22-70, Cl. 171-61.
Weasler Engineering & Mfg. Co., Inc.: *See—*
Reak, Bennett B., 3,505,833.
Weather-Seal, Inc.: *See—*
Selzer, Carl M., 3,491,584.
Weatherby, John H., to Precision Specialties, Inc. Clutch brake having positive output position selection. 3,521,730, 7-28-70, Cl. 192-12.
Weatherby, Roy E.; and Jennie, Fred L., said Jennie assor. to said Weatherby. Multiple barrel firearm having barrel selection means responsive to counter recoil. 3,537,203, 11-3-70, Cl. 42-42.
Weatherhead Company, The: *See—*
Bahniuk, Eugene, 3,535,480.
Cerbin, William G.; and Jeromson, James R., Jr., 3,525,361.
Herceg, Edward E., 3,527,099.
Miller, Paul J.; Chen, Karl K.; Jeromson, James R., Jr.; and Wellman, Ellis M., 3,540,760.
Van Ophem, Remy J., 3,536,874.
Weathershield Corporation: *See—*
Sciolino, Samuel, 3,500,599.
Weatherston, Roger C., to Cornell Aeronautical Laboratory, Inc. Gear compressors and expanders. 3,531,227, 9-29-70, Cl. 418-94.
Weatherston, Roger C.; and Duryea, George R., to Cornell Aeronautical Laboratory, Inc. Rotary inflow compressors and the like. 3,545,895, 12-8-70, Cl. 417-440.
Weatherup, William Davidson: *See—*
Ashton, Thomas Richard; Cottle, Victor Claude Herbert; Jackson, David; Smith, Michael John; and Weatherup, William Davidson,3,491,503.
Weatherwax, Gary T. Sheet metal pay-off reel apparatus. 3,500,672, 3-17-70, Cl. 72-179.
Weaver Associates, Inc.: *See—*
Weaver, Robert B.; and Weaver, Stuart E., 3,528,249.
Weaver, Calvin P. Tractor mounted hay rake apparatus. 3,546,869, 12-15-70, Cl. 56-377.
Weaver, Charles S., to Research Corporation. Optical crosscorrelation. 3,544,197, 12-1-70, Cl. 350-162.
Weaver, Clyde G. Process for making coffee drink. 3,551,164, 12-29-70, Cl. 99-65.
Weaver, David E., to Goodrich, B. F., Company, The. 2-Ethylhexyl acrylate-N-octyl acrylamide- methacrylamide/acrylamide terpolymer. 3,491,070, 1-20-70, Cl. 260-80.73
Weaver, David P., to International Telephone and Telegraph Corporation. Optical strain gauge. 3,517,999, 6-30-70, Cl. 356-32.
Weaver, Doyle M.; and Atchison, Kenneth A. Shipping enclosures. 3,487,914, 1-6-70, Cl. 206-46.
Weaver, Ernest P.: *See—*
Davies, Ben; Carini, George F.; and Weaver, Ernest P.,3,520,706.
Weaver, Howard; and Roaper, Robert B., II, to Cabot Corporation. Collection of pyrogenic titanium dioxide pigments. 3,493,342, 2-3-70, Cl. 23-202.
Weaver, John James Lawrence; and Eccles, Arnaud Michael, to English Electric Company Limited, The. Housings for electrically conductive heat- dissipating devices. 3,491,271, 1-20-70, Cl. 317-234.
Weaver, Leslie George Wheal, to Avimo Limited. Pressure heads for aircraft. 3,488,470, 1-6-70, Cl. 219-201.
Weaver, M. Ollidene: *See—*
Gugliemelli, Lewis A.; and Weaver, M. Ollidene,3,491,040.
Weaver, Marvin P.: *See—*
Boyer, Nicodemus E.; and Weaver, Marvin P.,3,526,672.
Weaver, Max A.; and Pridgen, Herman S., to Eastman Kodak Company. Water-insoluble phenyl-, thiazolyl- and benzothiazolylazophenylaminoalkylene-1,2- benzisothiazolin-3-one-1,1-dioxide dyes. 3,491,082, 1-20-70, Cl. 260-158.
Weaver, Max A.; and Straley, James M., to Eastman Kodak Company. Water-insoluble monoazo compounds containing an aniline coupling component substituted by both an acylamido group and a dicarboximido group. 3,525,733, 8-25-70, Cl. 260-152.
Weaver, Max A.; Straley, James M.; and Wallace, David J., to Eastman Kodak Company. 7-Aminophthaloylphenothiazines. 3,519,623, 7-7-70, Cl. 260-243.
Weaver, Max A.; and Wallace, David J., to Eastman Kodak Company. Monoazo thiadiazole dyes. 3,493,556, 2-3-70, Cl. 260-158.
Weaver, Max A.; and Wallace, David J., to Eastman Kodak Company. Phenyl-azo-phenyl dyes compounds. 3,546,204, 12-8-70, Cl. 260-205.
Weaver, Max A.: *See—*
Dale, John I., III; and Weaver, Max A.,3,515,714.
Dickey, Joseph B.; and Weaver, Max A.,3,510,470.
Weaver, Merle L.: *See—*
Graham, Robert P.; Huxsoll, Charles C.; Hart, Marcus R.; and Weaver, Merle L.,3,517,715.
Graham, Robert P.; Huxsoll, Charles C.; Hart, Marcus R.; and Weaver, Merle L.,3,547,173.
Weaver, Paul J., to Graning Enameling Company. Airgap. 3,512,545, 5-19-70, Cl. 137-216.
Weaver, Paul J. Fluidic tape reader. 3,515,858, 6-2-70, Cl. 235-61.11
Weaver, Paul J., to True-Trace Corporation. Template-controlled machine tool. 3,541,902, 11-24-70, Cl. 82-14.
Weaver, Paul J., to Graning-Weaver Company. Lathe. 3,543,617, 12-1-70, Cl. 82-14.
Weaver, Preston R., to UMC Electronics Company. Pressure transducer and timing system. 3,511,088, 5-12-70, Cl. 73-119.
Weaver, Richard L.; and Smoker, Benjamin K. Auger with angularly cutting blades for silo unloader. 3,498,479, 3-3-70, Cl. 214-17.
Weaver, Richard L.; and Smoker, Benjamin K. Silo bottom unloader apparatus. 3,501,029, 3-17-70, Cl. 214-17.
Weaver, Robert B.; and Weaver, Stuart E., to Weaver Associates, Inc. Stored energy thrust termination device. 3,528,249, 9-15-70, Cl. 60-254.
Weaver, Robert D., to General Motors Corporation. Galvanic cell with removable barrier between electrolyte and electrode and process for activating cell. 3,508,969, 4-28-70, Cl. 136-86.
Weaver, Stuart E.: *See—*
Weaver, Robert B.; and Weaver, Stuart E.,3,528,249.
Weaver, W. R., Company: *See—*
Thompson, John F., 3,540,256.
Weaver, William R., 3,491,975.
Weaver, William R., 3,506,329.
Weaver, William R., 3,516,736.
Weaver, Warren V., to Reliance Electric Company. Group elevator control for restricted power conditions. 3,506,095, 4-14-70, Cl. 187-29.
Weaver, William B., to Pan American Petroleum Corporation. Bearing means for reducing wireline friction in flow line loops. 3,496,998, 2-24-70, Cl. 166-0.5
Weaver, William R., to Weaver, W. R., Company. Telescope sight mount. 3,491,975, 1-27-70, Cl. 248-226.
Weaver, William R., to Weaver, W. R., Company. Telescopic sight with adjustable negative and erector lenses. 3,506,329, 4-14-70, Cl. 350-10.
Weaver, William R., to Weaver, W. R., Company. Focussing objective for telescope sights. 3,516,736, 6-23-70, Cl. 350-255.
Weaving, George Stewart: *See—*
Bowman, George Edward; and Weaving, George Stewart,3,544,278.
Web Press Engineering, Inc.: *See—*
Anderson, Bruce D.; and Cline, Ernest E., 3,539,085.
Cline, Ernest E., 3,487,722.
Wilkerson, Alan W., 3,541,414.
Webasto-Werk GmbH: *See—*
Friedl, Reiner; and Von Linde, Robert, 3,537,468.

Webb, Brian C. Pipeline station bypass device. 3,547,142, 12-15-70, Cl. 137-268.
Webb, Daniel D., to American Safety Equipment Corporation of Michigan. Helmet head suspension. 3,510,879, 5-12-70, Cl. 2-3.
Webb, Eldon L. Power vehicle safety device. 3,511,328, 5-12-70, Cl. 180-101.
Webb, Ernest C.: *See—*
Miller, Robert L.; Webb, Ernest C.; Mentzer, Everett K.; and Peplin, Stephen C.,3,501,145.
Webb, Garl N.: *See—*
Zwicker, Vernon M.; and Webb, Garl N.,3,538,610.
Webb, George C. Apparatus for dehydration of organic liquids-solids composites. 3,511,297, 5-12-70, Cl. 159-5.
Webb, George T., to International Business Machines Corporation. Pulse generating switch device. 3,514,729, 5-26-70, Cl. 335-207.
Webb, George Warren: *See—*
Rice, Richard E.; and Webb, George Warren,3,521,326.
Webb, Harley E., to Singer Company, The. Tufting machine with needle plate. 3,492,956, 2-3-70, Cl. 112-79.
Webb, James W.; and Hennig, Roy K., to Richardson-Merrell Inc. Machine for filling bottles. 3,519,108, 7-7-70, Cl. 198-34.
Webb, Jerry J.; Hecht, Alfred H.; and Griffith, Grover G., to Thiokol Chemical Corporation. Hydraulic actuator for solid propellant casting assembly. 3,508,688, 4-28-70, Cl. 222-326.
Webb, Jervis B., Company: *See—*
Biretta, Vitti Julian; Lemon, Elmer George, Jr.; and Vater, Eugene John, 3,527,624.
Boehm, Walter G., 3,498,212.
Dehne, Clarence A., 3,538,853.
Dehne, Clarence A., 3,543,689.
Jones, Roland P., 3,523,504.
Kavieff, Shelden M., 3,518,946.
Kohls, James P., 3,498,403.
MacMunn, George D., 3,493,920.
Torrance, Gordon A., 3,512,629.
Webb, Jesse J., to Dixisteel Buildings, Inc. Rigid interlocking overlapping panel joint with a drain groove. 3,520,100, 7-14-70, Cl. 52-534.
Webb, John M.: *See—*
Mellen, Edward J., Jr.; Baker, Edmond M.; and Webb, John M.,3,508,602.
Webb, John; and Stacey, John, to United Kingdom Atomic Energy Authority. Nuclear reactor with means for sealing reactor vessel closure plug. 3,522,144, 7-28-70, Cl. 176-50.
Parker, Horace Frank; and Webb, John,3,493,758.
Webb, Lester S., to Deering Milliken Research Corporation. Process and product of rendering cellulosic fabrics amenable to molding operations. 3,511,591, 5-12-70, Cl. 8-116.
Webb, Michael Guthrie: *See—*
Desty, Denis Henry; Bretherick, Leslie; and Webb, Michael Guthrie,3,503,214.
Desty, Denis Henry; Bretherick, Leslie; and Webb, Michael Guthrie,3,503,508.
Webb, Michael Guthrie, to National Research Development Corporation. Storage of liquids. 3,537,267, 11-3-70, Cl. 61-0.5
Webb, Orlando, Jr.; Graham, Ward A.; and Massa, Harry E., to Stratford Engineering Corporation. Preparation of olefin feeds for acid recovery processes. 3,544,653, 12-1-70, Cl. 260-683.61
Webb, Philip C. Fluorescent lamp control. 3,529,207, 9-15-70, Cl. 315-94.
Webb Publishing Company: *See—*
O'Boyle, Emmett James; and Rodi, Marlyn W., 3,523,503.
Webb, Ralph L., to Trane Company, The. Heat transfer surface which promotes nucleate ebullition. 3,521,708, 7-28-70, Cl. 165-186.
Webb, Richard Lansing: *See—*
Engel, Robert Henry; Fahrenbach, Marvin Jay; and Webb, Richard Lansing,3,546,338.
Webb, Richard Lansing; Strazdins, Edward; and Cabasso, Victor Jack, to American Cyanamid Company. Stable adjuvant emulsion compositions comprising hydrated salts of a polyvalent metallic cation and a higher fatty acid. 3,531,565, 9-29-70, Cl. 424-92.
Webb, Rodger L. Meat cubing machine. 3,506,046, 4-14-70, Cl. 146-78.
Webb, Shirley B.: *See—*
Osborne, Graham O.; Webb, Shirley B.; and Wood, Jack,3,494,937.
Webb, Thomas G.: *See—*
Hume, Clayton R.; and Webb, Thomas G.,3,542,444.
Webb, Thomas H.: *See—*
Patinkin, Seymour H.; and Webb, Thomas H.,3,524,733.
Webb, Thomas O., to Marathon Oil Company. Use of micellar solution to precede sandfrac treatments. 3,500,932, 3-17-70, Cl. 166-308.
Webb, Thomas O., to Marathon Oil Company. Cementing process using micellar solutions as well pipe and formation face cleansers. 3,532,168, 10-6-70, Cl. 166-292.
Webb, William B., Jr., to Du Pont de Nemours, E. I., and Company. Aqueous coating compositions containing dispersed submicron cellulosic polymer particles and the process of preparing said coating compositions. 3,522,070, 7-28-70, Cl. 106-170.
Webb, William E.: *See—*
Campanaro, Peter L.; Sleven, Marvin O.; and Webb, William E.,3,514,707.
Webber, Charles S.: *See—*
Grossman, Richard F.; and Webber, Charles S.,3,508,949.
Webber, Clifford J.: *See—*
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Webber Constructors, Inc.: *See—*
Webber, Frank P.; Scholer, Ronald W.; Guptill, Paul J.; Sheely, Graham R.; and Rippy, Clyde M., Jr., 3,527,310.
Webber, Frank P.; Scholer, Ronald W.; Guptill, Paul J.; Sheely, Graham R.; and Rippy, Clyde M., Jr., 50% to Webber Constructors, Inc. Pile driving and guiding apparatus. 3,527,310, 9-8-70, Cl. 173-43.
Webber, Robert C. Method and apparatus for guarding refrigeration systems. 3,491,544, 1-27-70, Cl. 62-77.
Webber, Robert C. Distillation system and method. 3,492,205, 1-27-70, Cl. 203-26.
Webbere, Fred J., to General Motors Corporation. Method and mold for casting thin wall cylinders. 3,527,285, 9-8-70, Cl. 164-114.
Webbere, Fred J.: *See—*
Miller, Mark F.; and Webbere, Fred J.,3,545,943.
Weben, Bernard: *See—*
Caille, Georges Edouard Yvon E.; and Weben, Bernard,3,543,828.
Weben, Jean-Pierre; Assenat, Maurice; and Vrillon, Claude, to Produits Chimiques Pechiney-Saint-Gobain. Superchlorinated polyvinyl chlorides and methods of preparation. 3,532,612, 10-6-70, Cl. 204-159.18
Weber, Abraham; and Frossard, Jacques Jean, to Mead Johnson & Company. Certain substituted 5,11-dihydro-10,10-dioxodibenz[c,f] [1,2]thiazepin-5-yloxy-amines. 3,519,633, 7-7-70, Cl. 260-292.
Weber, Abraham; and Frossard, Jacques Jean, to Mead Johnson & Company. Substituted 5,11-dihydro-10,10-dioxodibenzo[e,f] [1,2]thiazepines. 3,542,790, 11-24-70, Cl. 260-293.4
Weber, Abraham; and Frossard, Jacques J., to Mead Johnson & Company, mesne. Octalone carboxylic acids and their derivatives. 3,532,742, 10-6-70, Cl. 260-515.
Weber, Aloys E., to General Motors Corporation. Aluminum plating process. 3,493,474, 2-3-70, Cl. 204-33.
Weber, Alvin G.; and Modine, Alan D., to Esso Production Research Company. Prevention of oil well coning by mobility reduction. 3,497,011, 2-24-70, Cl. 166-306.
Weber, Alwin. Pouring spout for pierceable containers. 3,549,049, 12-22-70, Cl. 222-91.
Weber, Andreas; and Fricker, Ludwig, to Daimler-Benz Aktiengesellschaft. Installation for producing a starting mixture for injection-type internal combustion engines. 3,494,340, 2-10-70, Cl. 123-119.
Weber, Anton B., to FMC Corporation. Method of producing glass spheres. 3,506,421, 4-14-70, Cl. 65-21.
Weber, Carl W.; and McCarthy, Raymond. Gas vent. 3,515,305, 6-2-70, Cl. 220-44.
Weber, Charles H., to Maysteel Products Corporation. Articulated support for a movable flexible supply conduit. 3,546,875, 12-15-70, Cl. 59-78.1
Weber, Christian; and Merten, Rudolf, to Farbenfabriken Bayer Aktiengesellschaft. 1,4,2-Diazaphospholidine derivatives and process for their preparation. 3,551,527, 12-29-70, Cl. 260-927.
Weber Dental Manufacturing Company, The: *See—*
Buchtel, Dean H., 3,522,925.
Maurer, John A.; Ferguson, Victor R.; and Espenschied, Wilbur L., 3,514,153.
Maurer, John A.; and Lappin, Kenneth R., 3,530,513.
Weber, Edward H., Jr., to Bell Telephone Laboratories, Incorporated. Method and apparatus to adjust the capacitance of a network to some predetermined value. 3,509,291, 4-28-70, Cl. 179-175.31
Weber, Edward P.: *See—*
Schwope, Arthur D.; Jech, Robert W.; and Weber, Edward P.,3,510,275.
Schwope, Arthur D.; Jech, Robert W.; and Weber, Edward P.,3,546,769.
Weber, Edward T.; and Greenhalgh, Wilbur O., to United States of America, Atomic Energy Commission. Method of preparing a nitride nuclear reactor fuel. 3,510,434, 5-5-70, Cl. 252-301.1
Weber, Edward V., to International Business Machines Corporation. Position measuring system. 3,551,649, 12-29-70, Cl. 235-92.
Weber, Edward. Security attachment for cylinder lock. 3,531,959, 10-6-70, Cl. 70-364.
Weber, Francis J.: *See—*
Fielek, Anthony C., Jr.; and Weber, Francis J.,3,516,715.
Weber, Frank W., to Burroughs Corporation. Convertible timing circuit. 3,510,784, 5-5-70, Cl. 328-63.
Weber, Franz: *See—*
Steffen, Johannes Carl; and Weber, Franz,3,489,376.
Weber, George R., to National Distillers and Chemical Corporation. Inhibition of metal corrosion. 3,493,421, 2-3-70, Cl. 117-94.

Weber, George R., to National Distillers and Chemical Corporation. Corrosion inhibition by heat treatment. 3,503,596, 3-31-70, Cl. 263-52.

Weber, Georg: *See—*
Markert, Ferdinand; Schunck, Michael; and Weber, Georg,3,551,347.

Weber, Gustave: *See—*
Genton, Georges; and Weber, Gustave,3,532,517.

Weber, H. G., and Company Inc.: *See—*
Beninger, Robert L., 3,517,482.
Weber, Herbert H., 3,517,481.

Weber, Halmut: *See—*
Luginsland, Hans-Hermann; Rieck, Gerhard; and Weber, Halmut,3,505,088.

Weber, Hans B., to Midland-Ross Corporation. Railway car truck with friction dampened axles. 3,517,620, 6-30-70, Cl. 105-167.

Weber, Harry R.; and Heath, Donald P., to Mobil Oil Corporation. Blending system. 3,503,722, 3-31-70, Cl. 44-2.

Weber, Heinz P.: *See—*
Annesser, Richard J.; and Weber, Heinz P.,3,506,568.

Weber, Heinz, to Institut fur angewandte Phyrik der Universitat Bern. Light impulse coincidence detecting. 3,497,703, 2-24-70, Cl. 250-225.

Weber, Heinz, to Telesco Brophey Limited. Umbrella, especially of the collapsible type, having a flat cross-sectional shape in closed condition thereof. 3,513,863, 5-26-70, Cl. 135-25.

Weber, Heinz; and Seitel, Heinz, to Bremshey & Co. Telescopic collapsible umbrella frame. 3,496,950, 2-24-70, Cl. 135-46.

Weber, Helmut: *See—*
Aumuller, Walter; Weber, Helmut; Weyer, Rudi; Muth, Karl; and Fauland, Erich,3,504,026.
Aumuller, Walter; Weber, Helmut; Weyer, Rudi; Muth, Karl; Peschke, Wilhelm Ludwig Andreas Richard; and Rotzinger, Bruno; curator,3,510,496.
Fauland, Erich; Schmidt, Felix Helmut; Stach, Kurt; and Weber, Helmut,3,546,234.
Heerdt, Ruth; Hubner, Manfred; Schmidt, Felix Helmut; Stach, Kurt; and Weber, Helmut,3,520,887.
Heerdt, Ruth; Schmidt, Felix Helmut; Stach, Kurt; and Weber, Helmut,3,549,645.
Hitzemann, Gerhard; Kulling, Achim; Luginsland, Hans-Hermann; and Weber, Helmut,3,547,671.
Rieck, Gerhard; and Weber, Helmut,3,497,373.

Weber, Helmut; Aumuller, Walter; Weyer, Rudi; Muth, Karl; and Haack, Erich, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Burning. Benzenesulfonyl-ureas and process for preparing them. 3,489,798, 1-13-70, Cl. 260-553.

Weber, Helmut; Aumuller, Walter; Weyer, Rudi; Muth, Karl; and Schmidt, Felix Helmut, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Benzenesulfonyl ureas. 3,499,026, 3-3-70, Cl. 260-470.

Weber, Helmut; Aumuller, Walter; Weyer, Rudi; Muth, Karl; and Schmidt, Felix Helut, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Benzenesulfonyl-ureas as antidiabetic agents. 3,507,954, 4-21-70, Cl. 424-321.

Weber, Helmut; Aumuller, Walter; Weyer, Rudi; Muth, Karl; and Schmidt, Felix Helmut, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Benzenesulfonyl ureas as antidiabetic agents. 3,507,961, 4-21-70, Cl. 424-275.
Weyer, Rudi; Aumuller, Walter; Weber, Helmut; Muth, Karl; and Heerdt, Ruth,3,494,936.

Weber, Herbert H., to Weber, H. G., and Company Inc. Carton closer and sealer. 3,517,481, 6-30-70, Cl. 53-374.

Weber, Horst, to Farbenfabriken Bayer Aktiengesellschaft. Process for the production of zirconium-praseodymium yellow pigments. 3,510,332, 5-5-70, Cl. 106-299.

Weber, Horst, to Farbenfabriken Bayer Aktiengesellschaft. Black pigments with spinel structure. 3,528,839, 9-15-70, Cl. 106-304.

Weber, Horst, to Farbenfabriken Bayer Aktiengesellschaft. Ceramic pigments produced with the aid of peroxy compounds. 3,539,371, 11-10-70, Cl. 106-299.

Weber, Horst, to Farbenfabriken Bayer Aktiengesellschaft. Process for the production of zirconium- vanadium blue pigments. 3,544,347, 12-1-70, Cl. 106-299.

Weber, Joanne B., to Eastman Kodak Company. Silver halide systems containing stabilizer precursors. 3,535,115, 10-20-70, Cl. 96-109.

Weber, John Q.: *See—*
Lawton, Emil A.; and Weber, John Q.,3,488,163.

Weber, Joseph H.: *See—*
Watling, Gertrude C.; and Weber, Joseph H.,3,550,093.

Weber, Joseph J.: *See—*
Freeman, George S. P.; Jackson, Franklin D.; and Weber, Joseph J.,3,543,383.

Weber, Karl A. Gasoline tank overflow device. 3,520,329, 7-14-70, Cl. 137-571.

Weber, Karl Heinz, to Klingelnberg, W. Ferd., Sohne. Apparatus for checking the profiles of gear teeth, especially bevel gears. 3,546,780, 12-15-70, Cl. 33-179.5

Weber, Karl-Arnold: *See—*
Hoppe, Peter; Essig, Karl-August; Dornheim, Goetz-Gotmar; Bendler, Erich; Weber, Karl-Arnold; and Von Langenthal, Wolfram,3,546,060.
Keberle, Wolfgang; Weber, Karl-Arnold; and Berndt, Gerhard,3,496,045.

Weber, Klaus, to Leitz, Ernst, G.m.b.H. Device for optically scanning the object in a microscope. 3,518,014, 6-30-70, Cl. 356-203.

Weber, Kurt H.; and Cressman, George W., to General Electric Company. Photoflash lamp. 3,506,385, 4-14-70, Cl. 431-95.

Weber, Kurt: *See—*
Staeuble, Max; and Weber, Kurt,3,515,732.

Weber, Kurt, to Ciba Limited. Dyeing process. 3,495,928, 2-17-70, Cl. 8-35.

Weber, Laurance A.: *See—*
Rodkin, Dennis L.; and Weber, Laurance A.,3,544,728.

Weber, Lois: *See—*
Herzog, Herschel L.; Shapiro, Elliot L.; and Weber, Lois,3,493,588.

Weber, Manfred: *See—*
Furtig, Helmut; Wolf, Friedrich; Weber, Manfred; Hadicke, Udo; and Knoll, Herbert,3,542,509.

Weber, Max E., to Singer Company, The. Needle threader. 3,517,631, 6-30-70, Cl. 112-225.

Weber, Max, to Sulzer Brothers Limited. Heat exchanger of tubular construction. 3,496,997, 2-24-70, Cl. 165-163.

Weber, Max, to Elcalor AG, Fabrik fur Elektrothermische Apparate. Stacker for conically-shaped containers. 3,498,443, 3-3-70, Cl. 198-33.

Weber, Max, to Sulzer Brothers Limited. Heat exchanger for a steam raiser with support. 3,509,939, 5-5-70, Cl. 165-162.

Weber, Milton N. Pneumatic trim device. 3,496,899, 2-24-70, Cl. 114-66.5

Weber, Neill: *See—*
Dzieciuch, Matthew A.; and Weber, Neill,3,535,163.
Kummer, Joseph T.; and Weber, Neill,3,488,271.

Weber, Paul E., to United States of America, Army. Optical boresight device. 3,518,005, 6-30-70, Cl. 356-138.

Weber, Paul R., to Du Pont de Nemours, E. I., and Company. Compressor valve. 3,508,849, 4-28-70, Cl. 417-454.

Weber, Paul, to Hellige, Fritz, & Co., G.m.b.H. Direct current defibrillator with voltage- controlling means. 3,513,850, 5-26-70, Cl. 128-421.

Weber, Paul: *See—*
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Weber, Pierre Francois: *See—*
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Weber, Raymond E.; and Zwoboda, Kenneth J., to Singer-General Precision, Inc. Fluidic position sensor. 3,541,839, 11-24-70, Cl. 73-37.

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Weber, Robert D.: *See—*
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Weber, Robert E., to Kimberly-Clark Corporation. Oil absorbent, oil resistant impregnated paper. 3,497,380, 2-24-70, Cl. 117-155.

Weber, Robert E.; and Dull, Marvin L., to Kimberly-Clark Corporation. Heat formable artificial leather product and method of manufacture. 3,507,691, 4-21-70, Cl. 117-155.

Weber, Robert L., III. Low force aerosol valve with metering cap. 3,542,253, 11-24-70, Cl. 222-398.

Weber, Robert L. Coffee maker. 3,518,933, 7-7-70, Cl. 99-283.

Weber, Robert L.; and Olson, George E., to Caterpillar Tractor Company. Fuel line fitting. 3,489,435, 1-13-70, Cl. 285-13.

Weber, Roger L., to Texas Instruments, Incorporated. Apparatus for generating a stepped voltage waveform and color display system utilizing same. 3,492,416, 1-27-70, Cl. 178-5.4

Weber, Roger L., to Texas Instruments, Incorporated. Method of adjusting inductive devices. 3,548,492, 12-22-70, Cl. 29-602.

Weber, Roger L.; and Fu, Tzu T., to Texas Instruments, Incorporated. Color signal demodulator. 3,536,825, 10-27-70, Cl. 178-5.4

Weber, Rudolf; and Winterhalter, Walter, to Gebruder Junghans G.m.b.H. Centrifugal spiral band locking device, especially for self-destroying fuzes. 3,516,359, 6-23-70, Cl. 102-79.

Weber, Rudolf: *See—*
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Weber, Stuart: *See—*
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Weber, Victor; and Wangerow, Leroy C., to Grace, W. R., & Co. Joint sealing device. 3,532,032, 10-6-70, Cl. 94-39.

Weber, Walter O.: *See—*
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Weber, Walter; and Templin, Herbert. Sulky. 3,503,624, 3-31-70, Cl. 280-64.

Weber, Wilbert D.: *See—*
Ashton, Robert; Weber, Wilbert D.; and Hirsch, Walter,3,494,210.

Weber, Wilhelm: *See—*
Theidel, Klaus; and Weber, Wilhelm,3,549,017.

Weber, William B., to Caterpillar Tractor Company. Sealed hole and method of producing. 3,522,648, 8-4-70, Cl. 29-522.

Weber, William B.; and Anderson, Robert H., to Teledyne, Inc., mesne. Radiative heat source and re-entry body. 3,512,736, 5-19-70, Cl. 244-1.

Weber, William G. Water heating and filtering apparatus. 3,498,458, 3-3-70, Cl. 210-167.

Weber, William J., to Phillips Petroleum Company. Printing on packages. 3,509,680, 5-5-70, Cl. 53-14.

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Gaisser, August; Schaumann, Anton; and Weber, Willi,3,549,819.

Weber, Wilson J., Jr.; and Terry, James L., deceased (by Terry, Lola Irene; executrix), to Jefferson Chemical Company, Inc. Thermal cracking heater. 3,548,925, 12-22-70, Cl. 165-74.

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Webers, Heinz; and Verwey, Werner, to Bau-Stahlgewebe G.m.b.H. Device for reversing concrete reinforcing steel mats. 3,490,612, 1-20-70, Cl. 214-6.

Webley Scott Limited: *See—*
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Webster, Brian, to Lever Brothers Company. N-Aryl-4,6-dibromo-3-hydroxyphthalimide derivatives. 3,549,657, 12-22-70, Cl. 260-326.

Webster, Clifford L. Ammunition carrying case. 3,515,321, 6-2-70, Cl. 224-21.

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Webster, Edward W., to Massachusetts General Hospital, The. Composite shields against low energy X-rays. 3,514,607, 5-26-70, Cl. 250-108.

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Webster, Frank G.; and Heseltine, Donald W., to Eastman Kodak Company. Photographic emulsions containing a pyrimidinedione and a desensitizing nucleus linked by a dimethine or a double bond. 3,528,811, 9-15-70, Cl. 96-64.

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Webster, Henry George; and Dawtrey, Lewis Henry, to Standard-Triumph Motor Company Limited, The. Internal combustion piston engine with controlled air injection into both exhaust duct and cylinder. 3,537,257, 11-3-70, Cl. 60-30.

Webster, John. Necktie and tying aid therefor. 3,490,073, 1-20-70, Cl. 2-146.

Webster, Millard A. Rotary distributor. 3,504,141, 3-31-70, Cl. 200-25.

Webster, Milo Edward, to Gillette Company, The. Valve for pressurized container. 3,508,689, 4-28-70, Cl. 222-402.24

Webster, Milo E., to Gillette Company, The. Dispensing device. 3,495,744, 2-17-70, Cl. 222-402.24

Webster, Murle F., to W. W. Manufacturing Company. Adjustable crowding alley. 3,520,516, 7-14-70, Cl. 256-26.

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Webster, Owen Wright, to Du Pont de Nemours, E. I., and Company. Tetracyano cyclopentadiene compounds containing an azo group and methods of preparation. 3,536,694, 10-27-70, Cl. 260-192.

Webster, Peter A.; Clare, Dennis A.; and Brinkley, John Raymond, to Pye Limited. Battery operated radio receiver. 3,488,596, 1-6-70, Cl. 325-492.

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Webster, Robert M., Jr., to Mack Trucks, Inc. Multi-stage suspension. 3,537,696, 11-3-70, Cl. 267-63.

Webster, Ronald Bruce, to Gerber Scientific Instrument Company, The. Photo-exposure device using annular light beam. 3,548,713, 12-22-70, Cl. 95-1.

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Webster, Wilton W., Jr. Massflowmeter catheter. 3,545,428, 12-8-70, Cl. 128-2.05.

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Wechter, William J., to Upjohn Company, The. Process for labelling purine and pyrimidine containing compounds. 3,520,872, 7-21-70, Cl. 260-211.5

Weck, Dieter O., to United States Gypsum Company. Method and apparatus for dynamically distributing molten material onto a spinner surface. 3,503,726, 3-31-70, Cl. 65-15.

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Weddle, Vernon W. Method and apparatus for sonic detection of open breaks in overhead telephone cables. 3,551,804, 12-29-70, Cl. 324-52.

Wedekind, Donald H. Drive over gate. 3,491,482, 1-27-70, Cl. 49-131.

Wedell, Hans, to Henkel & Cie G.m.b.H. Color stable washing, rinsing and cleaning composition. 3,503,885, 3-31-70, Cl. 252-105.

Wedemeyer, Gerhard, to Dominitwerke Gesellschaft mit beschrankter Haftung. Single-core magnetic voltage regulator. 3,548,292, 12-15-70, Cl. 323-61.

Wedemeyer, Karlfried; Delfs, Detlef; and Kruckenberg, Winfried, to Farbenfabriken Bayer Aktiengesellschaft. Cellulose-containing textiles colored with reactive dyestuffs. 3,519,642, 7-7-70, Cl. 260-314.5

Wedemeyer, Karlfried: *See—*
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Wedlock, Bruce D., to Massachusetts Institute of Technology. Thermo-photovoltaic converter having back-surface junctions. 3,549,960, 12-22-70, Cl. 317-235.

Wedmore, William R.: *See—*
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Wedmore, William R.; and Miller, William C., to Automatic Electric Laboratories, Inc. Priority traffic control apparatus for preferential access to common control equipment. 3,532,829, 10-6-70, Cl. 179-18.

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Weed, John W.S., to Electric Reduction Company of Canada, Ltd. Bipolar electrolytic cell and process of operating said cell. 3,497,433, 2-24-70, Cl. 204-95.

Weed, Joseph Dodsworth: *See—*
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Weed, Ronald D., to United States of America, Atomic Energy Commission. Method and composition for decontamination of stainless steel surfaces. 3,496,017, 2-17-70, Cl. 134-2.

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Weeden, David F. Prosthetic article of apparel for tracheotomy patients. 3,529,595, 9-22-70, Cl. 128-140.

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Weekley, Edward Elijah, to Curran, John Limited. Engine test mountings. 3,527,088, 9-8-70, Cl. 73-117.4

Weeks, James F. Support mechanism for supporting various devices to be employed in cooperation with a hospital bed. 3,497,882, 3-3-70, Cl. 5-332.

Weeks, James F. Color-number association game apparatus. 3,549,150, 12-22-70, Cl. 273-135.

Weeks, Richard C., to Campbell Soup Company. Apparatus for forming bread wrapper. 3,543,480, 12-1-70, Cl. 53-210.

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Weeks, Waldo I., to International Electric Fence Company, Inc., mesne. Sugar beet thinner. 3,533,474, 10-13-70, Cl. 172-6.

Weeks, Walter L.; Smith, John I.; Sheets, Laurence L.; and McClure, Benton J., to Purdue Research Foundation. Device for determining the energization state of the center conductor of a shielded cable by sensing a voltage drop in the semiconductor sheath of the cable. 3,538,436, 11-3-70, Cl. 324-72.5

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Weesner, William E. Reaction product of elemental sulfur with sulfur containing polyesters and method of preparation. 3,513,133, 5-19-70, Cl. 260-75.

Weesner, William E.; and Schaar, John L., to Monsanto Research Corporation. Organosilicon compounds. 3,542,786, 11-24-70, Cl. 260-279.

Weesner, William E.; and Schiar, John L., to Monsanto Research Corporation. Trimethylsilylmethyl derivatives of substituted benzylamines. 3,529,004, 9-15-70, Cl. 260-448.2

Weesner, William E.: *See*—
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Wegehaupt, Karl-Heinrich; Nitzsche, Siegfried; Wick, Manfred; and Triem, Hermann, to Wacker-Chemie G.m.b.H. Method of preparing organohalogenosilicon compounds. 3,549,680, 12-22-70, Cl. 260-448.2

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Wegener, Horst A. R., to Sperry Rand Corporation. Electrically alterable non-destructive readout field effect transistor memory. 3,508,211, 4-21-70, Cl. 340-173.

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Wegener, Willi A.: *See*—
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Weggeland, John H. Picture viewer. 3,495,345, 2-17-70, Cl. 40-63.

Weglein, Rolf D., to Hughes Aircraft Company. Pacification of image recording media comprising applying a thin polymer film over the image surface. 3,547,631, 12-15-70, Cl. 96-27.

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Wegmann & Co.: *See*—
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Erb, Gerhard; and Britzke, Ingo, 3,520,083.

Wegmann, Jacques; Bosshard, Hans Heinrich; Koller, Eugen Johann; and Porret, Daniel, to Ciba Limited. Dyeing and printing processes. 3,494,717, 2-10-70, Cl. 8-31.

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Wegner, Eugene H., to Phillips Petroleum Company. Production, recovery and application of enzymatically active microorganisms. 3,510,401, 5-5-70, Cl. 195-51.

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Wehmer, Bruno F. Cephalometer device. 3,530,293, 9-22-70, Cl. 250-50.

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Wehner, Donald R., to United States of America, Navy. Tunable bandstop microwave switch comprising a PIN diode and variable capacitance. 3,521,199, 7-21-70, Cl. 333-73.

Wehner, Elimar. Method and apparatus for sawing panels. 3,522,825, 8-4-70, Cl. 143-1.

Wehner, Gottfried K.; and Anderson, Gerald S., to Litton Systems, Inc. Apparatus for sputtering wherein the plasma is confined by the target structure. 3,501,393, 3-17-70, Cl. 204-298.

Wehner, Klaus; Welker, Jurgen; and Seidel, Gunther, to VEB Leuna-Werke 'Walter Ulbricht'. Desorption of hydrocarbons from a molecular sieve in the presence of water and ammonia. 3,531,400, 9-29-70, Cl. 208-310.

Wehner, Norvin J., to Cramer Industries, Inc. Height adjustment apparatus. 3,547,394, 12-15-70, Cl. 248-412.

Wehner, William C. Method of assembling an automatically, adjustable pivot joint. 3,514,832, 6-2-70, Cl. 29-149.5

Wehner, William C.; Fitch, Lawrence H.; and Fister, Louis P., to Moog Industries, Inc. Pivot joint and ratchet means. 3,539,210, 11-10-70, Cl. 287-87.

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Wehr, Georg; and Gotze, Gotthold, to Rotenburger Metallwerke GmbH. Apparatus for removing branches and bark from trees. 3,515,185, 6-2-70, Cl. 144-3.

Wehr, Robert L., to Billco. Vertical glass washer. 3,497,897, 3-3-70, Cl. 15-77.

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Wehrmeister, Herbert L., to Commercial Solvents Corporation. Novel oxazolines and imizazolines and process therefor. 3,523,123, 8-4-70, Cl. 260-307.

Wehrmeister, Herbert L.; and Yalowitz, Harold I., to Commercial Solvents Corporation. Process for producing cyclohexylsulfonic acid. 3,492,344, 1-27-70, Cl. 260-513.6

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Wei, Peter H. L.; and Bell, Stanley C., to American Home Products Corporation. 1-Phenylsulfonyl-2-(2-thiazolin-2-yl-oxy and -thio) pyrrolidines. 3,501,489, 3-17-70, Cl. 260-306.7

Wei, Peter H. L.; and Bell, Stanley C., to American Home Products Corporation. 1-Phenylsulfonyl-2-loweralkyloxy and -thio pyrrolidines. 3,501,496, 3-17-70, Cl. 260-326.5

Wei, Peter H. L.; and Bell, Stanley C., to American Home Products Corporation. N-(4,4-diloweralkyloxy and thio butyl) benzene sulfonamides. 3,501,512, 3-17-70, Cl. 260-397.7

Wei, Peter H. L.; and Bell, Stanley C., to American Home Products Corporation. N-(4,4-diloweralkoxybutyl)-benzene sulfonamides. 3,501,526, 3-17-70, Cl. 260-556.

Wei, Peter H. L.; and Bell, Stanley C., to American Home Products Corporation. Process for the preparation of 7H-pyrido [1,2-b] [.1,2,5] benzothiadiazepine 5,5-dioxides and pyrrolo [1,2-b] [1,2,5] benzothiadiazepine 5,5-dioxides. 3,506,646, 4-14-70, Cl. 260-239.3

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Wei, Peter H. L.; and Bell, Stanley C., to American Home Products Corporation. 1,2-Dihydro-2-oxo-3-quinolineacetamides and related intermediates. 3,509,156, 4-28-70, Cl. 260-287.

Wei, Peter H. L.; and Bell, Stanley C., to American Home Products Corporation. 1-Alkylthiazolo [2,3-C] [1,2,4] benzothiadiazine- 2-carboxylic acid, 5,5-dioxide esters. 3,516,996, 6-23-70, Cl. 260-243.

Wei, Peter H. L.; and Bell, Stanley C., to American Home Products Corporation. Synthesis of 1,3-diazepino[1,2-α] indolin-1(2H)-ones. 3,518,254, 6-30-70, Cl. 260-239.3

Wei, Peter H. L.; and Bell, Stanley C., to American Home Products Corporation. 6-Amino-N-(2-[(2-dialknoxyalkyl)amino]ethyl)-benzenesulfonamides. 3,527,801, 9-8-70, Cl. 260-556.

Wei, Peter H. L.: *See*—
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Chiang, Yun-Sheng; De Perro, Peter L.; and Wei-Hsing Ing, Samuel, Jr.,3,532,496.

Weibel, William A., to Joslyn Mfg. and Supply Co. Luminaire. 3,544,785, 12-1-70, Cl. 240-25.

Weiberg, Gunter, to Konservenfabrik Thiede GmbH. High-pressure steam peeling machines. 3,526,260, 9-1-70, Cl. 146-47.

Weiberg, Otto, to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler. Process for the production of ε-caprolactone and its alkyl derivatives. 3,517,033, 6-23-70, Cl. 260-343.

Weible, John E. Scaffolding device. 3,515,244, 6-2-70, Cl. 182-150.

Weible, Warren W.: *See*—
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Zeller, Robert C.; and Weible, Warren W.,3,503,287.

Weibrecht, Otto, to VEB Carl Zeiss Jena. Apparatus for contactless marking of image points in photograms. 3,490,829, 1-20-70, Cl. 350-136.

Weichbrodt, Bjorn; and Grabkowski, Stephen E., to General Electric Company. Apparatus for early detection of tool chatter in machining operations. 3,504,581, 4-7-70, Cl. 82-1.

Weichbrodt, Bjorn; and Grabkowski, Stephen E., to General Electric Company. Sonic worn cutting tool detector. 3,548,648, 12-22-70, Cl. 73-104.

Weichbrodt, Bjorn: *See*—
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Weichel, Ernst. Apparatus for gradually breaking up a heap of cereal or leaf crop. 3,509,925, 5-5-70, Cl. 146-105.

Weichel, Ernst. Method for loading, transporting and unloading bulk materials. 3,517,842, 6-30-70, Cl. 214-152.

Weichel, Ernst. Apparatus for harvesting cereal grains, leafy vegetables, or hoed vegetables. 3,521,439, 7-21-70, Cl. 56-364.

Weichel, Ernst. Crop carrying vehicle having plural crop receiving devices. 3,543,498, 12-1-70, Cl. 56-364.

Weichel, Ernst. Process and apparatus for breaking up a mass of produce. 3,545,511, 12-8-70, Cl. 146-78.

Weichert, Rudolf: *See*—
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Weichsel, Walter May, to Motores y Aparatos Electricos, S.A. De C.V. Container for a food blender and liquefier. 3,504,816, 4-7-70, Cl. 215-1.

Weichselbaum, Theodore E., to Brunswick Corporation, mesne. Tissue infiltrant. 3,527,863, 9-8-70, Cl. 424-3.

Weichselbaum, Theodore E.; and Sperry, Gene, to Sherwood Medical Industries, Inc. Automatic pipette. 3,506,164, 4-14-70, Cl. 222-340.

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Weick, Fred E., to Piper Aircraft Corporation. Retractable landing gear system for aircraft. 3,511,455, 5-12-70, Cl. 244-102.

Weickgenannt, Egon R., to Sybron Corporation. Speed reducer construction for driving dental tools. 3,530,586, 9-29-70, Cl. 32-26.

Weickgenannt, Egon R.; Brickle, Donald J.; Bailey, Sidney W.; and Montgomery, John R., to Sybron Corporation. Dental console. 3,489,476, 1-13-70, Cl. 312-209.

Weickhardt, Ludwig, to Sartorius-Werke und vormals Gottinger Prazisionswaagenfabrik G.m.b.H. Aktiengesellschaft, Firma. Precision balance with preweighing. 3,522,856, 8-4-70, Cl. 177-168.

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Weidenbacker, Russell A. Safety and decorative cover for ice skates. 3,545,778, 12-8-70, Cl. 280-11.12

Weidenfeld, Abraham; and Hirsch, Louis W. Apparatus for fastening plies of sheet material together. 3,510,044, 5-5-70, Cl. 227-118.

Weider, Achille B.; and Hanger, Rolf. Apparatus for developing photographic material. 3,508,483, 4-28-70, Cl. 95-96.

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Weidinger, Hans; and Eisert, Manfred, to Badische Anilin- & Soda-Fabrik Aktiengesellschaft. Imidazoanthraquinone dyes. 3,544,564, 12-1-70, Cl. 260-240.

Weidinger, Hans; and Sturm, Rolf G., to Entwicklungsring Sud GmbH. Air intake apparatus for a jet-propulsion aircraft. 3,537,240, 11-3-70, Cl. 55-306.

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Weidlich, Erhard; and Kohlmuller, Gerlind, to Siemens Aktiengesellschaft. Method of stabilizing and increasing the activity of Raney catalysts, particularly Raney nickel. 3,489,694, 1-13-70, Cl. 252-477.

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Weien, Paul. Control valve assembly. 3,543,563, 12-1-70, Cl. 73-40.

Weier, Henry John. Laundry folding device. 3,493,226, 2-3-70, Cl. 270-68.

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Weigel, Jurgen, to Hamburger Flugzeugbau GmbH. Process for coating conductive substrates. 3,544,440, 12-1-70, Cl. 204-181.

Weigel, Morton L., to Sarkes Tarzian, Inc. Method and apparatus for automatically aligning tuning coil units. 3,521,677, 7-28-70, Cl. 140-92.1
Weigel, Morton L.; and Fuller, Wendell A., to Tarzian, Sarkes, Inc. Arrangement for simultaneous recording of a plurality of magnetic tape cartridges. 3,534,178, 10-13-70, Cl. 179-100.2
Weigel, Russell V.; and Miklos, Zoltan W., to General Electric Company. Lamp mount making apparatus. 3,550,227, 12-29-70, Cl. 29-25.19
Weigele, Gebhard; and Sulzberger, Johann. Apparatus for drying of washed vehicles, particularly passenger vehicles. 3,504,394, 4-7-70, Cl. 15-302.
Weigele, Gebhard; and Sulzberger, Johann. Automatic device for washing motor vehicles passing therethrough. 3,516,105, 6-23-70, Cl. 15-21.
Weigele, Gebhard; and Sulzberger, Johann. Automatic washing device for cleaning the vertical sides of a motor vehicle. 3,522,619, 8-4-70, Cl. 15-21.
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Weigmann, Erich W., to Entwicklungsring Sud GmbH. Apparatus for positioning the engines of short and vertical take-off aircraft. 3,529,791, 9-22-70, Cl. 244-54.
Weigmann, Erich W.; and Rosiger, Wolf, to Entwicklungsring Sud G.m.b.H. Jet engine ejector nozzle. 3,507,450, 4-21-70, Cl. 239-265.35
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Weil, Edward D.; Doorfman, Edwin; and Linder, Jerome, to Hooker Chemical Corporation. Polychloro-α-hydroxybenzylphosphonic and -phosphinic compounds. 3,501,556, 3-17-70, Cl. 260-953.
Weil, Edward D.; and Dorfman, Edwin, to Hooker Chemical Corporation. 4-Amino-2,3,5,6-tetrachlorobenzoic acid and derivatives thereof. 3,505,389, 4-7-70, Cl. 260-471.
Weil, Edward D.; Dorfman, Edwin; and Linder, Jerome, to Hooker Chemical Corporation. Polychloro-α-hydroxybenzylphosphonic and phosphinic derivatives as plant growth control agents. 3,515,537, 6-2-70, Cl. 71-86.
Weil, Edward D.; and Hoch, Paul E., to Hooker Chemical Corporation. Pesticidal compounds. 3,494,938, 2-10-70, Cl. 260-346.2
Weil, Edward D.; and Porter, John F., to Hooker Chemical Corporation. Adducts of hexahalocyclopentadiene with alkadienes as fire-retardant additives for polymers. 3,519,597, 7-7-70, Cl. 260-45.75
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Weil, Karl-Heinz, to Grasoli-Werk Gerb. Grah. Liquid measurer with a tipping cup. 3,527,270, 9-8-70, Cl. 141-284.
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Weimer, Ervin C.; Shideler, Harold W.; and Porter, Stuart M., to Stearns-Roger Corporation, The. Method and apparatus for recycling dryer stack gases. 3,538,614, 11-10-70, Cl. 34-28.
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Weinbaum, Hillel, to American Machine & Foundry Company. Calibration of multiple channel electronic systems. 3,544,970, 12-1-70, Cl. 340-973.
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Weisfeld, Lewis B., to Carlisle Chemical Works, Inc. Vinyl chloride resins stabllized with combinations of a zinc salt and a polyphosphite. 3,501,430, 3-17-70, Cl. 260-23.

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Weiss, Charles M., to Continental Oil Company. Recovery of aluminum chloride from spent aluminum chloride alkylation catalyst sludge. 3,523,009, 8-4-70, Cl. 23-92.

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Weissman, Bernard. Dental venting device. 3,487,544, 1-6-70, Cl. 32-12.

Weissman, Bernard. Dental retaining splint, securing means, therefor and combination. 3,487,545, 1-6-70, Cl. 32-5.

Weissman, Bernard. Dental prosthetic structure holding device. 3,497,953, 3-3-70, Cl. 32-10.

Weissman, Bernard. Dental paralleling guide. 3,508,334, 4-28-70, Cl. 32-67.

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Weizmann, Eugen: *See—*
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Wej-It Expansion Products, Inc.: *See—*
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Wekler, Oscar L., to Barber-Colman Company. Starting control for electric motor. 3,538,410, 11-3-70, Cl. 318-221.

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Welborn, Jimmie Ray, to J & J Manufacturing Company. Baling apparatus. 3,541,758, 11-24-70, Cl. 53-62.

Welby Steward, Bass & Company: *See—*
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Welch, Brian Richard, to Associated Electrical Industries Limited. Automatic control systems. 3,495,662, 2-17-70, Cl. 172-3.

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Welch, Clark M.: *See—*
Murphy, Alton L.; Welch, Clark M.; Margavio, Matthew F.; and Cooper, Albert S., Jr.,3,498,739.
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Welch, Dean E.; and Baron, Robert R. Nitro-trifluoromethylbenzamides. 3,518,305, 6-30-70, Cl. 260-558.

Welch, Dean E.; and Hein, Richard W., to Escambia Chemical Corporation. Process for producing nitroform. 3,491,160, 1-20-70, Cl. 260-644.

Welch, Elvin C., to International Telephone and Telegraph Corporation. Angle measuring apparatus with digital output. 3,505,669, 4-7-70, Cl. 340-347.

Welch, Frank J., to Union Carbide Corporation. Preparation of vinyl phosphoryl compounds. 3,519,607, 7-7-70, Cl. 260-80.

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Welch, Fredrick M., to Allis-Chalmers Manufacturing Company. Rotating biological contactor in a combined sewer. 3,516,929, 6-23-70, Cl. 210-17.

Welch, Graydon L., to McDonnell Douglas Corporation. Door balance mechanism. 3,503,092, 3-31-70, Cl. 16-1.

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Welch, John, to Diagrit Grinding Company Limited. Holder for a cutting tool bit. 3,533,150, 10-13-70, Cl. 29-96.

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Welch, Lester M., to Petro-Tex Chemical Corporation. Process involving oxidation. 3,502,718, 3-24-70, Cl. 260-524.

Welch, Newell G., to Acme Visible Records, Inc. Motor braking circuit. 3,509,441, 4-28-70, Cl. 318-261.

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Welch, Ralph A. Method and apparatus for treating solid material in particulate or fibrous form. 3,522,659, 8-4-70, Cl. 34-22.

Welch, Stanley B., to General Electric Company. Pure solid state self-cleaning oven control. 3,546,435, 12-8-70, Cl. 219-501.

Welch, Walter J., to GAF Corporation. Two-component heat developing diazotypes. 3,522,048, 7-28-70, Cl. 96-91.

Welch, Walter J., to GAF Corporation. Thermal diazotype papers. 3,539,345, 11-10-70, Cl. 96-91.

Welch, Warren F., to Superior Concrete Accessories, Inc., mesne. Concrete form and joint forming member therefor. 3,497,172, 2-24-70, Cl. 249-3.

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Weld, Foster Earle, to Bliss, E. W., Company. Plug-in electric circuit component. 3,488,619, 1-6-70, Cl. 339-17.

Weld, Foster Earle: *See—*
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Weld, Robin Trench, to United Kingdom of Great Britain and Northern Ireland, The Secretary of State for Defense in Her Britannic Majesty's Government of. Bridges. 3,499,179, 3-10-70, Cl. 14-27.

Weld Tooling Corporation: *See—*
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Welders, A. I., Limited: *See—*
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Welding & Steel Fabrication Co., Inc.: *See—*
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Weldon, Edward J., Jr.: *See—*
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Weldon, Leonard Harvey Pocock, to Imperial Chemical Industries Limited. Compact twistless multifilament yarn bundle. 3,494,822, 2-10-70, Cl. 161-172.

Weldon, Roger J., to Markstems, Inc. Article identification system detecting plurality of colors disposed on article. 3,513,320, 5-19-70, Cl. 250-219.

Weldon Tool Company, The: *See—*
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Weldotron Corporation: *See—*
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Weldwood of Canada Limited: *See—*
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Courtney, Albert L.; Weldy, Floyd P.; Cervelli, Renato V.; and Ades, Clifford S.,3,532,308.

Welin-Berger, Guy John Olof. Method and device for interconnecting thin paper webs or sheets along defined areas. 3,514,355, 5-26-70, Cl. 156-291.

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Welk, Horace B., Jr.; and Young, Robert W., to United States of America, Navy. Fluidic position transducer. 3,516,293, 6-23-70, Cl. 73-432.

Welker, Bill R. Portable plate heater and carrier. 3,538,309, 11-3-70, Cl. 219-386.

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Grey, Donald M.; Butler, Lee D.; Welker, Jerry W.; and Crane, Jack W.,3,502,230.

Welker, Jurgen: *See—*
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Welker, Manfred, to VEB Spinnereimaschinenbau Karl-Marx-Stadt. Driving mechanism for the detaching device of a comber. 3,490,298, 1-20-70, Cl. 74-42.

Welker, Oscar L., to Barber-Colman Company. Laminated stator core structure. 3,502,922, 3-24-70, Cl. 310-172.

Welker, Robert H.; Carson, Frank J.; and Schroder, Robert J., to Libbey-Owens-Ford Glass Company. Inspection apparatus. 3,488,852, 1-13-70, Cl. 33-1.

Welker, Robert H.; and Ritter, George F., Jr., to Libbey-Owens-Ford Company. Apparatus for reshaping and cooling glass sheets. 3,488,178, 1-6-70, Cl. 65-268.

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Welland, John M., to Perkin-Elmer Limited. Pressure control. 3,530,891, 9-29-70, Cl. 137-624.18

Wellauer, Oskar. Apparatus for turning and aligning of workpieces. 3,540,568, 11-17-70, Cl. 198-33.

Welle, Hendricus Bernardus Antonius; and Meltzer, Jacques, to U.S. Philips Corporation, mesne. Controlling beetles with 3,5-dimethyl-4- dimethylaminomethylphenyl-N-methylcarbamate. 3,513,240, 5-19-70, Cl. 424-300.

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Wellenreuther, Gerhard: *See—*
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Weller, Berthold L.; Wolf, Andrew; and Rich, Harold M., to Kitchens of Sara Lee, Inc. Method of producing a packaged whipped cream layer cake. 3,537,866, 11-3-70, Cl. 99-180.

Weller, Ernest E.; and Fitzgerald, John V., to Tile Council of America, Inc. Water-activated epoxy compositions. 3,496,119, 2-17-70, Cl. 260-2.

Weller, Heinrich Peter; and Mehl, Josef. Apparatus for automatically reversing the direction of rotation of a shaft, with continually varying amounts of angular rotation thereof. 3,541,889, 11-24-70, Cl. 74-810.

Weller, John J., to Standard Plastics, Inc. Emblematic article or medallion. 3,526,050, 9-1-70, Cl. 40-129.

Weller, Kurt: *See—*
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Welles, Donald P., Jr., to Welles Products Corporation. Method and apparatus for controlling oxygen transfer and power requirements in a water aeration system. 3,521,864, 7-28-70, Cl. 261-77.

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Wellford, Armistead L.: *See—*
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Welligan, Casmier J.: *See—*
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Wellington, Charles L. Artificial limb with an expansible foam stump socket. 3,520,002, 7-14-70, Cl. 3-19.

Wellington Puritan Mills, Inc.: *See—*
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Wellman, Ellis M.: *See—*
Miller, Paul J.; Chen, Karl K.; Jeromson, James R., Jr.; and Wellman, Ellis M.,3,540,760.

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Wellman, Roy L., Jr., to Federated Department Stores, Inc. Article supporting rack. 3,519,140, 7-7-70, Cl. 211-148.

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Wellner, Georges: *See—*
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McGlumphy, James H.; Pfaff, James Orville; Quinn, Alton De Witt; and Wellner, Georges,3,550,598.

Wells, Alan, to Hepworth & Grandage Limited. Annular sealing means. 3,522,949, 8-4-70, Cl. 277-140.

Wells, Daniel M., to Farmer Bros. Co. Automatic coffee brewing control. 3,530,276, 9-22-70, Cl. 219-334.

Wells, Donald G., to Armstrong Cork Company. Glass container coating machine. 3,509,852, 5-5-70, Cl. 118-323.

Wells, Donald H., to Scott & Fetzer Company, The, mesne. Magnetically driven antenna array. 3,500,426, 3-10-70, Cl. 343-819.

Wells, Donald H., to Scott & Fetzer Company, The, mesne. Antenna having dipoles inductively coupled to transmission line. 3,500,471, 3-10-70, Cl. 343-814.

Wells Fargo Bank: *See—*
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Wells, Frank L.: *See—*
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Wells, Harold D. Infra-red concentrator. 3,493,724, 2-3-70, Cl. 219-345.

Wells, Herbert Joseph Shapcott: *See—*
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Wells, Inc.: *See—*
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Wells Industries Corporation: *See—*
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Wells, James E., III: *See—*
Hard, Robert A.; Wells, James E., III; and Hansen, Donald J.,3,503,857.

Wells, Jimmie D., to United States of America, Air Force. Multimodule thrust mount. 3,517,897, 6-30-70, Cl. 244-1.

Wells, John B., to Xerox Corporation. Process for the preparation of a cuprous iodide conductive film. 3,505,131, 4-7-70, Cl. 148-6.14

Wells, John B., to Xerox Corporation. Electrophotographic imaging system including a halogen treatment step for making background areas transparent. 3,536,482, 10-27-70, Cl. 96-1.

Wells, John Harold Charles, to U.S. Philips Corporation. Device for range switching analog values from first to second ranges to precisely determine digital value from analog quantity. 3,508,250, 4-21-70, Cl. 340-347.

Wells, Joseph W., to Associated Spring Corporation. Axial springs loaded in parallel. 3,503,601, 3-31-70, Cl. 267-1.

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Wells, Leon W. Motion picture projector. 3,494,690, 2-10-70, Cl. 352-72.

Wells, Leon W., to Panopix Research Inc. Film cartridge having a floating film guide. 3,499,618, 3-10-70, Cl. 242-197.

Wells, Leon W., to Panopix Research Inc. Optical step printer. 3,502,411, 3-24-70, Cl. 355-54.

Wells, Leon W., to Panopix Research Inc. Self-threading motion picture projector. 3,506,345, 4-14-70, Cl. 352-72.

Wells, Leon W., to Panopix Research Inc. Motion picture projector. 3,516,738, 6-23-70, Cl. 352-158.

Wells, Lowell J.: *See—*
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Wells, Paul E.: *See—*
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Davis, John S.; and Wells, Paul E.,3,500,352.

Wells, Paul E.; Davis, John S.; Lee, Ronald E.; and Boles, David R., to Bunker.Ramo Corporation, The. Coating method. 3,540,988, 11-17-70, Cl. 204-24.

Wells, Ralph P.; and Wells, Joyce L. Retractable fishing rod gimbal. 3,531,888, 10-6-70, Cl. 43-21.2

Wells, Richard C. Remote indicating device. 3,531,791, 9-29-70, Cl. 340-255.

Wells, Roy E.: *See—*
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Wells, Roy Ernest, to Electra Totalisators Pty. Limited. Electrical relaying system for transmission of particulars of betting wagers to display board. 3,513,440, 5-19-70, Cl. 340-147.

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Wells, Vernon O. High wind sensing and warning system. 3,537,088, 10-27-70, Cl. 340-241.

Wells, Wallace O., to Texas Instruments, Incorporated. Semiconductor slice storage and conveyor system. 3,507,382, 4-21-70, Cl. 198-213.

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Wellworthy Limited: *See—*
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Welsh, Alan B., to Kimball Piano & Organ Co. Percussion rhythm device for keyboard musical instruments. 3,524,009, 8-11-70, Cl. 84-1.26

Welsh, Alan B.; Hebeisen, Richard M.; and Slaats, Mathew A., to Jasper Electronic Mfg. Corporation. Tow channel amplifier system with differential output for a third speaker. 3,497,604, 2-24-70, Cl. 84-1.01

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Welsh, James P.: *See—*
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Welsh, James P., to Caterpillar Tractor Company. Glow plug timer. 3,490,427, 1-20-70, Cl. 123-179.

Welsh, James W.; and Davis, James F., Jr. Valve device having resilient response elements. 3,513,874, 5-26-70, Cl. 137-525.

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Welsh, Norman C., to Gillette Company, The. Safety razors. 3,488,764, 1-6-70, Cl. 30-50.

Welsh, Norman Clifford, to Gillette Company, The. Safety razor blade having an internally sharpened edge and externally blunt edges. 3,494,032, 2-10-70, Cl. 30-346.59

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Welsh, Robert B., to Sperry Rand Corporation. Three phase full wave rectifier for a three phase four wire alternating current supply. 3,492,560, 1-27-70, Cl. 321-5.

Welsh, Thomas Laurence; Peterson, Donald Leroy; Palermo, Blasey Thomas; and Hoss, George Carr, to Miles Laboratories, Inc. Effervescent tablet and process for making same. 3,518,343, 6-30-70, Cl. 424-44.

Welsh, Thomas Laurence; and Tomaich, George Ronald, to Miles Laboratories, Inc. Tableting lubricant. 3,518,344, 6-30-70, Cl. 424-44.

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Welstead, William John, Jr.; Helsley, Grover Cleveland; and Chen, Ying-Ho, to Robins, A. H., Company Incorporated. 3-Amino-1-carbamyl and thiocarbamyl pyrrolidines. 3,509,171, 4-28-70, Cl. 260-326.3

Lunsford, Carl D.; Welstead, William John, Jr.; and Helsley, Grover Cleveland,3,542,807.

Welter, Clarence L.: *See—*
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Weltha, Marvin D.: *See—*
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Welti, Arno, to Albiswerk Zurich A.G. Infrared detection method and apparatus for converting a thermal characteristic to a visible image. 3,488,500, 1-6-70, Cl. 250-83.3

Weltner, Corliss L. Bed with reciprocable head portion. 3,550,165, 12-29-70, Cl. 5-109.

Welty, Richard O., to Phillips Petroleum Company. Drying polymeric material. 3,512,266, 5-19-70, Cl. 34-42.

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Weman, Per-Olaf, to Sigmatex AG. Anchorage, particularly for safety belts for motor vehicles. 3,531,834, 10-6-70, Cl. 24-221.

Wemlinger, Vincent J., to Du Pont de Nemours, E. I., and Company. Heat-sealable gusseted bag. 3,529,765, 9-22-70, Cl. 229-62.

Wemmerus, Frederick W., to United Fruit Company. Ship cargo compartment. 3,489,119, 1-13-70, Cl. 114-211.

Wen, Cheng P., to RCA Corporation. Tunable microstrip band pass filter utilizing gyromagnetic material at the junction of two conductive loops. 3,546,637, 12-8-70, Cl. 333-73.

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Wenckus, Joseph F.; and Doherty, Paul R., to Little, Arthur D., Inc. Heat sensitive fuel controlled Verneuil process. 3,511,614, 5-12-70, Cl. 23-273.

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Wendel, Eberhard. Method of reducing iron ores to pig iron. 3,537,841, 11-3-70, Cl. 75-42.

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Stearns, James B.; and Wendelburg, Robert W.,3,549,979.

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Wendland, Paul H., to United Detector Technology, Inc. Radiation transducer. 3,496,404, 2-17-70, Cl. 315-11.

Wendland, Paul H., to Hughes Aircraft Company. Structure to convert infrared radiation images to visible radiation images using a photoconductive element having a plurality of isolated junctions therein. 3,548,193, 12-15-70, Cl. 250-83.3

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Kuo, Chan Hwa; Taub, David; and Wendler, Norman L.,3,501,521.

Wendler, Norman L., to Merck & Co., Inc.5-(Oxapropylidene)-5H-dibenzo[a,d]10,11- dihydrocycloheptenes. 3,505,406, 4-7-70, Cl. 260-599.

Wendler, Norman L.; Taub, David; and Kuo, Chan Hwa, to Merck & Co., Inc. Hexahydronicotinamides. 3,505,342, 4-7-70, Cl. 260-294.

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Whiting, Mark Crosby, to Ethyl Corporation. Process for preparing diphenylacetonitrile. 3,499,921, 3-10-70, Cl. 260-465.

Whiting, Mark Crosby, to Ethyl Corporation. Aromatic group VIB tricarbonyls and process for preparing same. 3,539,647, 11-10-70, Cl. 260-613.

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Whitman, Charles I.: *See—*
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Whitman, Robert D.: *See—*
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Whitmeyer, Herbert W., to Du Pont de Nemours, E. I., and Company. Brightening water-soluble cellulose derivatives. 3,549,617, 12-22-70, Cl. 260-232.

Whitmore, Henry B. Linear pressure bleed regulator. 3,489,172, 1-13-70, Cl. 137-512.1.

Whitmore, Henry B. Pulse sensor and transducer for small movements. 3,530,267, 9-22-70, Cl. 200-83.

Whitmore, Henry B.; and Cupps, Daniel W. Compressed air operated catapult system for ejection seat trainers. 3,507,264, 4-21-70, Cl. 124-11.

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Whitney, Eugene C., to Westinghouse Electric Corporation. Housing and support structure for large, vertically disposed rotating machines. 3,523,203, 8-4-70, Cl. 310-91.

Whitney, Gilbert C., Jr., to Foster Wheeler Corporation. Pyrite and tramp iron removal apparatus for coal pulverizers. 3,510,071, 5-5-70, Cl. 241-61.

Whitney, Richard W.; and Roth, Lawrence O. Nut harvester. 3,530,655, 9-29-70, Cl. 56-328.

Whitney, Robert C.; and Bergman, Raymond M., to Gulf Research & Development Company. Ethylene polymer and vinylidene chloride polymer articles of manufacture. 3,547,689, 12-15-70, Cl. 117-138.8

Whitney, Roy W., to Coe Laboratories. Non-slipping plastic denture material and the like. 3,530,581, 9-29-70, Cl. 32-2.

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Whitney, Wiley. Crossbar link circuit with a common group of selectable call-waiting circuits. 3,532,831, 10-6-70, Cl. 179-18.

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Whitsel, Ronald J., to United States of America, Navy. Pure fluid annunciator. 3,517,639, 6-30-70, Cl. 116-118.

Whitsel, Travis S., Jr., to Ashland Oil & Refining Company. Production of carbon black. 3,498,750, 3-3-70, Cl. 23-209.4

Whitson, Robert B.; and Tanguy, Lewis L., Jr., to Burroughs Corporation. R. F. nondestructive interrogation system for a magnetic memory. 3,492,662, 1-27-70, Cl. 340-174.

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Whittaker, Harold; and Hooper, Norbert, to T.M.M. (Research) Limited. Methods for plying or twisting yarns or filaments. 3,491,528, 1-27-70, Cl. 57-156.

Whittaker, Johnnie L.: *See—*
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Whittemore, Lawrence C. Lock for hydraulic brakes of vehicles. 3,515,442, 6-2-70, Cl. 303-89.

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Wiatt, James G.; and Bruns, Edward C., to Cincinnati Milling Machine Co., The. Hold-down apparatus for material cutting machine. 3,499,355, 3-10-70, Cl. 83-155.

Wiatt, James G.; and Bruns, Edward C., to Cincinnati Milling Machine Co., The. Support for flexible table top. 3,503,295, 3-31-70, Cl. 83-648.

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Wichterle, Otto, to Ceskoslovenska akademie ved. Method of production of plastic lenses with aspherical surfaces. 3,497,577, 2-24-70, Cl. 264-1.

Wichterle, Otto, to Ceskoslovenska Akademie ved. Method of preparing shape retaining bodies of organic polymer hydrogels. 3,499,862, 3-10-70, Cl. 260-29.7

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Wick, Arnold, to Ciba Limited. Acylated dibenzo naphthacridine-5,11,16- triones. 3,530,135, 9-22-70, Cl. 260-274.

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Wick, Richard; and Knapp, Walter, to Agfa-Gevaert Aktiengesellschaft. Color printing apparatus. 3,523,728, 8-11-70, Cl. 355-32.

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Wicker, Dan B.; Bennett, James G., Jr.; and Ward, Lowell G., to Huyck Corporation. Bandaging and dressing material. 3,545,442, 12-8-70, Cl. 128-296.

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Wilkinson, Norman, to Lucas, Joseph, (Industries) Limited. Direction indicator switches with slidable detent member and detent release means. 3,542,981, 11-24-70, Cl. 200-61.3

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Willcox, Frederick P. Photo-optical code translator and selector. 3,498,439, 3-3-70, Cl. 197-18.

Willcox, Frederick P. High speed teleprinter. 3,534,847, 10-20-70, Cl. 197-18.

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Williams, Russell C., to General Motors Corporation. Combination loading and traction device for scraper. 3,545,108, 12-8-70, Cl. 37-8.
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Wilson, Charles D., to Allis-Chalmers Manufacturing Company. Main steam line desuperheater systems, apparatus and method. 3,496,724, 2-24-70, Cl. 60-105.
Wilson, Charles D., to Xerox Corporation. Developer replenishing programming system. 3,527,387, 9-8-70, Cl. 222-57.
Wilson, Charles J. Method for administering injectable liquids. 3,495,591, 2-17-70, Cl. 128-218.
Wilson, Charles J. Apparatus for administering injectable liquids. 3,548,826, 12-22-70, Cl. 128-218.
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Wilson, Clarence Martin, to Walker, Thomas, Limited. Machines for attaching pronged garment fasteners. 3,539,088, 11-10-70, Cl. 227-18.
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Wilson, David H., to Tracked Hovercraft Limited. Linear motor speed control system. 3,549,966, 12-22-70, Cl. 318-135.
Wilson, David, to Clutsom-Penn International Limited. Production of yarns. 3,527,045, 9-8-70, Cl. 57-152.
Wilson, Delbert T.; and Young, Richard J., to International Business Machines Corporation. Method of molding vertical bosses. 3,537,171, 11-3-70, Cl. 29-470.1
Wilson, Dennis W.: *See—*
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Wilson, Donald C., to FMC Corporation. Method and apparatus for processing products in flexible containers. 3,501,318, 3-17-70, Cl. 99-185.
Wilson, Donald C., to FMC Corporation. Processing products in flexible containers. 3,528,826, 9-15-70, Cl. 99-185.
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Wilson, Donald R., to Pacific Plantronics, Inc. Earform mold and method of making the mold for supporting, acoustic apparatus on a wearers ear. 3,513,269, 5-19-70, Cl. 179-107.
Wilson, Donald R., to Pacific Plantronics, Inc. Fluid flow rate detector. 3,522,731, 8-4-70, Cl. 73-209.
Wilson, Donald R. Leg stimulator and exerciser. 3,548,811, 12-22-70, Cl. 128-55.
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Wilson, Edward L., Jr.; and Wadley, Edward F., to Esso Research and Engineering Company. Cyclic process for converting coal into liquid products by use of fixed catalytic beds. 3,514,394, 5-26-70, Cl. 208-10.
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Wilson, Glenn R., to Monsanto Research Corporation. Modified functional fluids. 3,538,002, 11-3-70, Cl. 252-75.
Wilson, Harold W., to Golden Cycle Corporation, The. Process for the entrapment of sulfur dioxide gas. 3,547,583, 12-15-70, Cl. 23-225.
Wilson, Henry Allen. Jig saw puzzle with similarly shaped and similarly coded subassemblies. 3,540,732, 11-17-70, Cl. 273-157.
Wilson, Henry Allen. Combined cap and aerial projector. 3,545,760, 12-8-70, Cl. 273-106.
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Wilson, Homer M., to Petrolite Corporation. Electrochemical process for studying and determining the nature of fluid-containing underground formations. 3,518,530, 6-30-70, Cl. 324-1.
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Wilson, James D., to Banner Metals, Inc. Hand truck. 3,534,879, 10-20-70, Cl. 214-384.
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Wilson, John Hart. Automated programming device. 3,500,863, 3-17-70, Cl. 137-624.17
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Wilson, John Hart. Clutch or brake fluid cooling system. 3,530,965, 9-29-70, Cl. 192-113.
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Wilson, John Richard, Jr.; and Piekenbrock, Lawrence J., to Dawson, Alexander, Inc., mesne. Optical scanning apparatus. 3,512,870, 5-19-70, Cl. 350-160.
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Wilson, Newton R.; and Morgan, Bill T., to Phillips Petroleum Company. Double-wall blow molded carton. 3,544,021, 12-1-70, Cl. 220-7.
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Wilson, Ransford B.; and Williams, John V., to Eastman Kodak Company. Silver-dye-bleach process utilizing formazan dyes. 3,503,741, 3-31-70, Cl. 96-20.
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Wilson, Robert, to Atlantic Richfield Company. Method of spin casting glass casing. 3,528,792, 9-15-70, Cl. 65-71.
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Wilson, Thomas Lamont; and Hickok, Willard H., to Chemetron Corporation. Dielectric heating apparatus. 3,518,396, 6-30-70, Cl. 219-10.53
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Wilson, Timothy C. Oil mist lubrication process and novel lubricating oil composition for use therein. 3,510,425, 5-5-70, Cl. 252-46.6
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Witte, Josef; Pampus, Gottfried; Haas, Friedrich; Schon, Nikolaus; and Kuntz, Egon, to Farbenfabriken Bayer Aktiengesellschaft. Process for isolating cis-1,4-polyisoprene from hydrocarbon solutions. 3,544,542, 12-1-70, Cl. 260-94.7

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Wittle, Eugene L., to Parke, Davis & Company. Alkyl and alkenyl phenoxyalkyl amino compounds. 3,526,637, 9-1-70, Cl. 260-326.5

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Wolf, Siegfried Gerhard, to Bliss, E. W., Company. Slab turner. 3,487,953, 1-6-70, Cl. 214-1.

Wolf, Tobin. Sounding wetting doll. 3,490,170, 1-20-70, Cl. 46-117.

Wolf, Tobin. Raceway with obstacles for toy vehicles. 3,502,332, 3-24-70, Cl. 273-86.

Wolf, Tobin. Toy simulating realistic driving conditions. 3,525,175, 8-25-70, Cl. 46-240.

Wolf, Walter A.; and Corn, Prentice R., to Switches, Incorporated. Elongated switch having spaced rib actuating means. 3,544,746, 12-1-70, Cl. 200-86.

Wolf, Walter, to Daimler-Benz Aktiengesellschaft. Securing arrangement of the rod for the inner cover fabric of the roof of vehicles, especially passenger motor vehicles. 3,524,675, 8-18-70, Cl. 296-137.

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Wolf, William C. Submersible cable pumping unit. 3,510,234, 5-5-70, Cl. 417-450.

Wolf, William D., to Monsanto Company. Increasing the density of thermoplastic foam. 3,504,399, 4-7-70, Cl. 18-12.

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Wolfe, Chesley L.; and Webster, Hadley L. Trailer house drain connection. 3,496,959, 2-24-70, Cl. 137-344.

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Wolfe, Denis G., to Robertshaw Controls Company. Heat motor safety valve construction and parts therefor. 3,498,730, 3-3-70, Cl. 431-42.

Wolfe, Denis G.; Genbauffe, Francis S.; and Carns, John F., to Robertshaw Controls Company. Burner construction having electrical spark ignition means. 3,511,588, 5-12-70, Cl. 431-264.

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Wolfendale, Peter Caleb. Transformer means for a cascade-transformer type potential divider. 3,531,714, 9-29-70, Cl. 323-43.5

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Wolff, Hanns H., to United States of America, Navy. High resolution low distortion television system. 3,542,951, 11-24-70, Cl. 178-6.8

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Wood, Davis M.; and Varcoe, Warren R., to Lockheed Aircraft Corporation. X-ray screen adapter for photographic negative holder. 3,509,340, 4-28-70, Cl. 250-68.

Wood, Dellos L., to Sperry Rand Corporation. Shift counter having false mode suppression. 3,530,284, 9-22-70, Cl. 235-153.

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Wood, Ernest Herbert. Granular, free-flowing, synthetic thermosetting aminoplast resin molding composition containing defiberized alpha-cellulosic pulp of a certain fiber length wherein said filler is substantially the sole filler present. 3,516,953, 6-23-70, Cl. 260-17.3

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Wood, Fenton M.; and Crouch, Alfred E., to American Machine & Foundry Company. Apparatus for discriminating between inside and outside defects using a combined leakage field and eddy current test system. 3,538,433, 11-3-70, Cl. 324-37.

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Wood, Garfield A., Jr. Electric power pack for boats. 3,498,253, 3-3-70, Cl. 115-18.

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Wood, George C. Rotary raking wheel tooth and mounting. 3,531,927, 10-6-70, Cl. 56-400.

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Wood, George C.; and Kirkpatrick, John H., Jr., to Patent & Development, Incorporated. Rotary side delivery rake. 3,516,238, 6-23-70, Cl. 56-377.

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Zebley, Donald D.; and White, Ralph, to United Merchants and Manufacturers, Inc. Hoisting and transporting apparatus, especially for loom warp beams. 3,540,097, 11-17-70, Cl. 28-41.

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Getz, Edward T., and M. Pacak, to Eaton Yale & Towne Inc. Load supporting structures having auxiliary mounting frame means. Re. 26,947, 9–8–70, Cl. 297—452.
Giesy, Jerry D. Apparatus for obtaining urine samples. Re. 26,854, 4–14–70, Cl. 128—2.
Goodyear Tire & Rubber Co., The: *See*—
Calderon, Nissim. Re. 26,875.
Grace, W. R., & Co.: *See*—
Shroyer, Harold F. Re. 26,962.
Graham, Patricia M.: *See*—
Wingfield, Edward C., and Graham. Re. 27,005.
Graham, Richard H.: *See*—
Wingfield, Edward C., and Graham. Re. 27,005.
Grant, Charles H., and T. E. Slykhouse, to The Dow Chemical Co. Explosive composition and method. Re. 26,815, 3–10–70, Cl. 86—20.
Granville-Phillips Co.: *See*—
Bills, Daniel G., and Warren. Re. 26,973.
Graves, Howard K. Piano sound board. Re. 26,894, 5–26–70, Cl. 84—192.
Greene Engineering Co.: *See*—
Greene, George B. Re. 26,954.
Greene, George B., 90% to Greene Engineering Co. and 10% to Electronic Engineering Co. Typewriter with means to decrease rate of operation to prevent typebar malfunction. Re. 26,954, 9–22–70, Cl. 197—20.
Greene, Kenneth F.: *See*—
Chapman, Edward B., Greene, and Ronkese. Re. 26,983.
Gregory, Charles E., to Jered Industries, Inc. Hydrostatic engine and sheave assembly. Re. 26,864, 4–21–70, Cl. 254—189.
Grekek, Howard: *See*—
Hujsak, Karol L., Grekek, and Mungen. Re. 26,773.
Groeneveld, Yme B. F. J.: *See*—
Dijksterhuis, Popko R., Groeneveld, and Verhey. Re. 27,015.
Guggemos, Kenneth F. Recessed hinged base standard. Re. 26,995, 12–1–70, Cl. 52—122.
Hagelbarger, David W., W. G. Hall, and W. A. Malthaner, to Bell Telephone Laboratories, Inc. Information storage and retrieval system. Re. 26,919, 6–23–70, Cl. 340—172.5.
Hagfors, Norman R., to Medtronics, Inc. Implantable electrode. Re. 26,809, 3–3–70, Cl. 128—418.
Hall, Fred V.: *See*—
Walker, Brooks, and Hall. Re. 26,985.
Hall, William G.: *See*—
Hagelbarger, David W., Hall, and Malthaner. Re. 26,919.
Hamill Mfg. Co.: *See*—
Fisher, Robert C. Re. 26,754.
Hamm, Phillip C., and Speziale, A. J., to Monsanto Co. Herbicides. Re. 26,961, 10–6–70, Cl. 71—118.
Hardy, Frank M., to Haver-Lockhart Laboratories, Inc. Injectable reconstituted collagen fluid adjuvant for vaccines and other drugs. Re. 26,963, 10–13–70, Cl. 424—89.
Hardy, Kenneth D., to Beecham Group Ltd. N-penicillanoyloxy. derivatives. Re. 26,818, 3–10–70, Cl. 260—239.1.
Harris, Bernard, and P. A. Jones, to British Titan Products Co. Ltd. Process for producing pigmentary metal oxides substantially free from falling accretion material. Re. 26,897, 5–26–70, Cl. 23—202.
Harris, Darrel M., to Monsanto Co. Resistance heating elements and method of conditioning the heating surfaces thereof. Re. 26,885, 5–19–70, Cl. 117—215.
Harvey, Leon C., to Kysor Industrial Corp. Temperature actuated valves. Re. 26,840, 3–31–70, Cl. 236—86.
Hauni-Werke Korber & K.G.: *See*—
Bohn, Horst, and Schluter. Re. 26,900.
Haver-Lockhart Laboratories, Inc.: *See*—
Hardy, Frank F. Re. 26,963.
Hays, Fred E. Steam-vacuum generator for rug and upholstery cleaning. Re. 26,950, 9–22–70, Cl. 15—321.
Hazeltine Research, Inc.: *See*—
Richman, Donald. Re. 26,852.
Hedin, Robert A., and A. F. Balzano, to Digital Identification Systems, Inc. Key-actuated electronic security system. Re. 27,013, 12–22–70, Cl. 70—277.
Hennig, Fridolin, and J. von Albedyll, to Agfa Aktiengesellschaft. Cameras with built-in flash assemblies. Re. 26,763, 1–13–70, Cl. 95—11.
Hercules Inc.: *See*—
Palmer, David A. Re. 26,850.
Hervey, Laurence R. B., and D. K. George, to Riegel Textile Corp. Method for improving a fluffed fibrous wood pulp batt for use in sanitary products and the products thereof. Re. 26,930, 8–18–70, Cl. 128—284.
Hess, Frederic O., to Selas Corporation of America. Metal heating. Re. 26,969, 10–6–70, Cl. 72—200.
Heth, Sherman C., to Jacobsen Mfg. Co. Air-supported lawn mower. Re. 26,816, 3–10–70, Cl. 56—25.4.
Hetherington, Jack C.: *See*—
Etchison, John O., Jr., and Hetherington. Re. 26,791.
Hewko, Lubomyr O. Accessory drive mechanism. Re. 26,978, 11–17–70, Cl. 74—795.
Hicks, Bruce C. to E.M.P. Electric Ltd. Spark gap devices. Re. 27,007, 12–22–70, Cl. 313—161.
High Duty Alloys Ltd.: *See*—
Doyle, William M., and Ashton. Re. 26,907.
Hilbert, Francis H., and N. W. Parker, to Motorola, Inc. Color television demodulation system. Re. 26,925, 6–30–70, Cl. 178—5.4.
Hindman, Clyde C. Adjustable spray head. Re. 26,889, 5–19–70, Cl. 239—546.
Hinz, Arnulf: *See*—
Ziegler, Hans-Werner, Kowalski, and Hinz. Re. 26,843.
Hirvela, Robert J., to Collins Radio Co. Storage means for receiving, assembling and distributing teletype characters. Re. 26,984, 11–24–70, Cl. 340—172.5.
Holmes, Allie B., to Opti-Cap Inc. Engine cooling system with vacuum relief device. Re. 26,765, 1–13–70, Cl. 165—51.
Hooper, William K., to Republic Foil, Inc. Treatment of aluminum foil and product produced thereby. Re. 26,892, 5–26–70, Cl. 29—183.5.
Hudson, James W., to Square D Co. Building floor construction and underfloor wiring duct system. Re. 26,814, 3–10–70, Cl. 52—221.
Hujsak, Karol L., H. Grekek, and R. Mungen, to Pan American Petroleum Corp. Producing petroleum by forward combustion and cyclic steam injection. Re. 26,773, 1–20–70, Cl. 166—259.
Hull, Bobbie B., to General Electric Co. Motor stator stack of bonded laminations with less bonding material at bolt hole regions. Re. 26,788, 2–10–70, Cl. 310—217.
Hurst, George H., Jr., and W. G. Campbell, to Hurst Performance, Inc. Gear shifting apparatus. Re. 26,884, 5–19–70, Cl. 74—478.
Hurst Performance, Inc.: *See*—
Hurst, George H., Jr., and Campbell. Re. 26,884.
Hydranautics: *See*—
Chambers, Henry B., and Tellefson. Re. 26,905.
Illinois Tool Works, Inc.: *See*—
Koepke, John A. Re. 26,845.
Rapata, George M. Re. 26,767.
Instron Corp.: *See*—
Preston, John L. Re. 26,782.

Intermountain Research and Engineering Co.: *See*—
Clay, Robert B., and Udy. Re. 26,804.
International Business Machines Corp.: *See*—
Chapman, Edward B., Greene, and Ronkese. Re. 26,983.
Dion, Reginald R., Benenati, and Coughlin. Re. 26,899.
Edwards, David B. G., and Kilburn. Re. 26,867.
Lazarus, John P. Re. 26,772.
Norwood, Richard E. Re. 26,940.
Randley, Peter L. Re. 26,832.
International Harvester Co.: *See*—
Morkoski, James, Clendenin, and Corwith. Re. 26,871.
Packard, Norman M., and Cook. Re. 26,764.
Sullivan, Herbert D. Re. 26,870.
Itek Corp.: *See*—
Berman, Elliot, and Ekman. Re. 27,012.
Jacobsen Mfg. Co.: *See*—
Heth, Sherman C. Re. 26,816.
Jaeggli, Rudolf C., to Rieter Machine Works Ltd. Machine for treating textile thread. Re. 26,847, 4–7–70, Cl. 28—71.3.
Jakob, Frans, and J. Spatz, to Agfa Aktiengesellschaft. Camera having a built-in flash-bulb arrangement. Re. 26,922, 6–30–70, Cl. 95—11.
Jakobsson, Karl U., by Elektriska Svetsningsaktiebolaget. Apparatus for welding circular joints. Re. 26,800, 2–24–70, Cl. 219—125.
Jarke Corp.: *See*—
Allen, William A. Re. 26,988.
Allen, William A. Re. 27,001.
Jennings, Paul A., to Armco Steel Corp. Alloy steel containing chromium, nickel and manganese. Re. 26,903, 2–9–70, Cl. 75—128.
Jered Industries, Inc.: *See*—
Gregory, Charles E. Re. 26,864.
Jeynes, Graham F.: *See*—
Crowther, Gerald O., and Jeynes. Re. 26,821.
Crowther, Gerald O., and Jeynes. Re. 26,822.
Crowther, Gerald O., and Jeynes. Re. 26,823.
Jones, Peter A.: *See*—
Harris, Bernard, and Jones. Re. 26,897.
Jorgensen, Niels C., to A. B. Pedersen. Apparatus for heating and setting hair. Re. 26,766, 1–13–70, Cl. 219—222.
Jorgensen, Svend M., to Foster Wheeler Corp. Shear stud vessel closures and shell joints. Re. 27,011, 12–22–70, Cl. 220—55.
KMS Industries, Inc.: *See*—
Klein, Max. Re. 26,948.
Kabushiki Kaisha Hitachi Seisakusho: *See*—
Yasuda, Kazuo, Ousawa, and Takeuchi. Re. 26,855
Kahn, Alan R., to Beckman Instruments, Inc. Linear integrating cardiotachometer. Re. 26,753, 1–6–70, Cl. 128—2.6.
Kamborian, Jacob S.: *See*—
Becka, Michael M. Re. 26,860.
Vornberger, Karl F. and W. Re. 26,805.
Kantor, Sidney: *See*—
Waletzky, Emanuel, Berkelhammer, and Kantor. Re. 26,833.
Kaplan, Morton S., to Micro-Thermal Applications, Inc. Method for casting jewelry by the lost wax process. Re. 26,785, 2–10–70, Cl. 164—34.
Keith, Frederick W., Jr., to Pennwalt Corp. Centrifuge discharge means. Re. 26,986, 11–24–70, Cl. 233—29.
Kelso, John G., to Norton Co. Process for making metal bonded diamond tools employing spherical pellets of metallic powder-coated diamond grits. Re. 26,879, 5–19–70, Cl. 51—295.
Kendall Co., The: *See*—
Scheier, Stanley C. Re. 26,912.
Kenney, James T., to United Geophysical Corp. Seismic prospecting system. Re. 26,825, 3–17–70, Cl. 181—.5.
Kent-Owens Machine Co.: *See*—
Tremblay, Albert F. Re. 26,914.
Kessler, Seymour, to Zenith Radio Corp. Electrical relay. Re. 26,801, 2–24–70, Cl. 335—138.
Kiessling, Rudolf H., and C. A. Schaefer, to Square D Co. Electric limit switch having a diagonally divided housing, a detachable actuator, and mechanism for causing selected operation of a pushbutton snap switch. Re. 27,016, 12–29–70, Cl. 200—47.
Kilburn, Tom: *See*—
Edwards, David B. G., and Kilburn. Re. 26,867.
Kilmer, William M. H.: *See*—
Albertson, Orris E., and Kilmer. Re. 26,908.
Klein, Martin L., H. C. Morgan, and R. B. Rush, to North American Rockwell Corp. High speed data conversion and handling. Re. 26,910, 6–23–70, Cl. 340—172.5.
Klein, Max, to KMS Industries, Inc. Textured surface painting sheets and method of making same. Re. 26,948, 9–8–70, Cl. 161—19.
Klinikowski, James J., to Burroughs Corp. Electronic diode matrix decoder circuits. Re. 26,780, 2–3–70, Cl. 340—347.
Klopper, Daniel R., to Union Corp. Ltd. Settling apparatus. Re. 27,000, 12–8–70, Cl. 259—108.
Knapsack Aktiengesellschaft: *See*—
Ziegler, Hans-Werner, Kowalski, and Hinz. Re. 26,843.
Ko, Wen H., to Conoflow Corp. Digital actuator including feedback representation of the stepper motor winding energization state. Re. 26,926, 6–30–70, Cl. 318—138.
Koepke, John A., to Illinois Tool Works, Inc. Switch assembly including indicating means. Re. 26,845, 3–31–70, Cl. 200—167.
Kollsman Instrument Corp.: *See*—
Tellerman, Jacob. Re. 26,774.
Kornylak, Andrew T., to Kornylak Corp. System for handling foamed plastic. Re. 26,849, 4–7–70, Cl. 18—4.
Kornylak Corp.: *See*—
Kornylak, Andrew T. Re. 26,849.
Kowalski, Werner: *See*—
Ziegler, Hans-Werner, Kowalski, and Hinz. Re. 26,843.
Kreeger, Elsmer W., to Pinckney Molded Plastics, Inc. Nest and stack containers. Re. 26,758, 1–6–70, Cl. 220—97.
Kreibich, Roland E., H. G. Freeman, G. F. Baxter, and K. F. Kumli, to Weyerhaeuser Co. Method of producing an ortho-directed phenolic resin by condensing phenol and HCHO in the presence of a bivalent metal ion and the adding resorcinol, and the resultant product. Re. 26,881, 5–19–70, Cl. 260—52.
Krock, Richard H.: *See*—
Zdanuk, Edward J., and Krock. Re. 26,980.
Kumli, Karl F.: *See*—
Kreibich, Roland E., Freeman, Baxter, and Kumli. Re. 26,881.
Kysor Industrial Corp.: *See*—
Harvey, Leon C. Re. 26,840.
Labofina S.A.: *See*—
Marechal, Joseph E. M., Debus, and Cahen. Re. 26,883.
Laitram Corp., The: *See*—
Lapeyre, James M. Re. 26,971.
Lamb, Frank G., to Lamb-Weston, Inc. Method of and apparatus for slicing potatoes. Re. 26,796, 2–17–70, Cl. 146—241.
Lamb, Richard D.: *See*—
Turner, Abner B., and Lamb. Re. 26,886.
Lamb-Weston, Inc.: *See*—
Lamb, Frank G. Re. 26,796.
Langer, Arthur W., Jr.: *See*—
Torngvist, Erik, and Langer. Re. 26,942.
Lapeyre, James M., to The Laitram Corp. Apparatus for peeling shrimp. Re. 26,971, 10–20–70, Cl. 17—75.
La Velle, Harold G., to Data-Link Corp. Using brick cleaning apparatus. Re. 26,868, 4–28–70, Cl. 125—26.
Layman, John D., to General Electric Co. Temperature compensated control systems. Re. 26,933, 8–11–70, Cl. 83—72.
Lazarus, John P., to International Business Machines Corp. Interpretation machine. Re. 26,772, 1–20–70, Cl. 340—172.5.
Lazrus, Julian, L. H. Strauss, and W. P. Canning, to Benrus Corp. Electronic timepiece. Re. 26,958, 9–29–70, Cl. 58—23.
Lehr, Donald A.: *See*—
Beadle, Robert G., Lehr, and Maxwell. Re. 26,996.
Lemelson, Jerome H., to The Molins Organisation Ltd. Automatic production apparatus and method. Re. 26,770, 1–20–70, Cl. 29—33.
Lemelson, Jerome H. Article manipulation apparatus. Re. 26,904, 6–9–70, Cl. 214—1.
Lennox Industries Inc.: *See*—
Ellis, Charles B., and Brown. Re. 26,819.
Levenberg, Nat L., Tilt-proof cabinet construction. Re. 26,902, 5–26–70, Cl. 312—273.
Levitt, Harold E.: *See*—
Willcox, Frederic P. Smith, and Levitt. Re. 26,830.
Lewis, George E., to Power-Flo Products, Inc. Shifting mechanism. Re. 26,989, 11–24–70, Cl. 74—337.5.
Lewis, Gerald P., and P. Ruetschi, to ESB Inc. Multistage process for the concentration of heavy water in feed water comprising a mixture of water and heavy water. Re. 26,913, 6–23–70, Cl. 204—101.
Long, Ray S., and E. C. Tveter. Hydrochlorination process for recovery of metal values. Re. 26,982, 11–17–70, Cl. 23—16.
Lowe, Edwin C., to Norton Co. Hexagonal silicon crystals produced from an elemental silicon vapor deposited onto a carbon plate. Re. 26,941, 8–25–70, Cl. 23—208.
Lubrizol Corp., The: *See*—
Cohen, Jerome M. Re. 26,811.
Luca, Jacob L., to Minigrip, Inc. Controlled cooling of extruded plastic. Re. 26,991, 11–24–70, Cl. 264—95.
Luckey, Manley J. Breath alcohol determination. Re. 27,008, 12–22–70, Cl. 23—254.
Lyckeby Starkelsefaradling Aktiebolag: *See*—
Conrad, Ernst. Re. 26,959.
Mahon, John V., to Container Corp. of America. Reclosable folding carton. Re. 26,895, 5–26–70, Cl. 229—51.
Mahoney, William P., to Ball Brother Co., Inc. Treatment of newly formed glass articles. Re. 26,760, 1–6–70, Cl. 215—1.
Malek, Jan M. Fluent bed heat exchanger. Re. 26,993, 11–24–70, Cl. 159—16.
Mallonee, William C.: *See*—
Stow, George C., Jr., Mallonee, and Barrett. Re. 26,824.
Malthaner, William A.: *See*—
Hagelbarger, David W., Hall, and Malthaner. Re. 26,919.
Marechal, Joseph E. M., H. R. Debus, and R. M. Cahen, to Labofina S.A. Process for the reduction of the aromatic content of petroleum distillates. Re. 26,883, 5–19–70, Cl. 208—143.
Maremont Corp.: *See*—
West, Paul B., and Savageau. Re. 26,807.
Marsh, William J.: *See*—
Berchtold, Donald V., Marsh, and Little. Re. 26,976.
Martin-Marietta Corp.: *See*—
Paynter, Howard L., Tyler, and Satterlee. Re. 26,784.
Maxwell, Hugh S.: *See*—
Beadle, Robert G., Lehr, and Maxwell. Re. 26,996.

McCollum, Burton, deceased, by P. R. Rowe, and Bank of the Southwest National Association, independent executors, to McCollum Laboratories, Inc. Short wave seismic pulse radiator. Re. 26,893, 5–26–70, Cl. 181—.5.
McCollum Laboratories, Inc.: *See*—
McCollum, Burton. Re. 26,893.
McConnell, James L., to Whirlpool Corp. Electronic timer escapement and coin counter. Re. 26,957, 9–27–70, Cl. 194—9.
McElroy, James E., to Bailey Meter Co. Overpressure seal for differential pressure responsive device. Re. 26,813, 3–10–70, Cl. 92—10.
McLean, William B., to W. G. Finch. Proportional navigation system for a spinning body in free space. Re. 26,887, 5–19–70, Cl. 244—3.16.
Mead Corp., The: *See*—
Gentry, Hermond G., and Garrard. Re. 26,851.
Mechanics for Electronics, Inc.: *See*—
Montagu, Jean I. Re. 26,749.
Medtronics, Inc.: *See*—
Hagfors, Norman R. Re. 26,809.
Schwartz, Seymour I., Wingrove, and Anderson. Re. 26,810.
Meier, Eric A., and M. Dexter, to Geigy Chemical Corp. Process for the preparation of carbonyl compounds containing a hindered phenol group. Re. 27,004, 12–15–70, Cl. 260—473.
Melges, Frederick J. Gynecology or lithotomy drape. Re. 26,759, 1–6–70, Cl. 128—132.
Micro-Thermal Applications, Inc.: *See*—
Kaplan, Morton S. Re. 26,785.
Midland-Ross Corp.: *See*—
Cullen, Orville E. Re. 26,935.
Miller, Walter A., and S. O. Cook, to Union Carbide Corp. Thermoplastic films and process for preparing same. Re. 26,928, 6–30–70, Cl. 264—230.
Mills, Robert J. Industrial dust-mop cleaner. Re. 26,955, 9–29–70, Cl. 15—311.
Minigrip, Inc.: *See*—
Luca, Jacob L. Re. 26,991.
Molins Organisation Ltd., The: *See*—
Lemelson, Jerome H. Re. 26,770.
Mollon, Leslie, to Brooks & Perkins, Inc. Pallet locking mechanism. Re. 26,873, 4–28–70, Cl. 105—366.
Monsanto Co.: *See*—
Hamm, Philip C., and Speziale. Re. 26,961.
Harris, Darrel M. Re. 26,885.
Stow, George C., Jr., Mallonee, and Barrett. Re. 26,824.
Montagu, Jean I., to Mechanics for Electronics, Inc. Electric motor for limited rotation. Re. 26,749, 1–6–70, Cl. 335—229.
Moore, Coleman B.: *See*—
Adams, Robert B., and Moore. Re. 26,876.
Moore, Guy Z., Jr., to El Paso Products Co. Butadiene extraction and purification. Re. 26,794, 2–17–70, Cl. 260—681.5.
Moore Products Co.: *See*—
Adams, Robert B., and Moore. Re. 26,876.
Moore, Wendell F., and E. G. Ganczak, to Bell Aerospace Corp. Personnel flying device. Re. 26,756, 1–6–70, Cl. 244—4.
Morgan, Agnes T.: *See*—
Morgan, Raymond E. Re. 26,974.
Morgan, Harry C.: *See*—
Klein, Martin L., Morgan, and Rush. Re. 26,910.
Morgan, Raymond E., deceased, by A. T. Morgan, Administratrix, to General Electric Co. Time ratio control and inverter power circuits. Re. 26,974, 10–27–70, Cl. 321—48.
Morkoski, James, W. H. Clendenin, and J. Corwith, Jr., to International Harvester Co. Material chopping and comminuting device. Re. 26,871, 4–28–70, Cl. 146—117.
Mosbach, Karl T. R., to Bio-Rad Laboratories. Chromatographic separation of substances of different molecular weight. Re. 26,934, 8–18–70, Cl. 260—29.6.
Motorola Inc.: *See*—
Parker, Norman W. Re. 26,924.
Hilbert, Francis H., and Parker. Re. 26,925.
Muller, Paul A., to Celfil Co. Establishment. Filtering material. Re. 26,945, 8–25–70, Cl. 55—489.
Mungen, Richard: *See*—
Hujsak, Karol L., Grekek, and Mungen. Re. 26,773.
Myers, Philip E., to Warner Electric Brake & Clutch Co. Electric speed control for sewing machine. Re. 26,836, 3–24–70, Cl. 112—220.
Nalco Chemical Co.: *See*—
O'Shea, Patrick J. Re. 26,969.
Nolan, Earl C. Ultrasonic type net weight load indicator for vehicles. Re. 26,826, 3–17–70, Cl. 177—137.
North American Rockwell Corp.: *See*—
Atkinson, James L. Re. 26,799.
Klein, Martin L., Morgan, and Rush. Re. 26,910.
Norton Co.: *See*—
Kelso, John G. Re. 26,879.
Lowe, Edwin C. Re. 26,941.
Norwood, Richard E., to International Business Machines Corp. Fluid-operated logic devices. Re. 26,940, 8–18–70, Cl. 137—599.
Optical Coating Laboratory, Inc.: *See*—
Auwarter, Max. Re. 26,857.
Opti-Cap Inc.: *See*—
Holmes, Allie B. Re. 26,765.
O'Shea, Patrick J., to Nalco Chemical Co. Metal casting process. Re. 26,969, 10–20–70, Cl. 164—72.
Ostermeier, Claus, to Hans Sickinger Co. Spiral binder applying machine. Re. 26,929, 6–30–70, Cl. 140—92.94.
Otis Engineering Corp.: *See*—
Brown, Norman F. Re. 26,998.
Otto, Fritz: *See*—
Stephan, Siegfried, and Otto. Re. 27,002.
Ousawa, Makoto: *See*—
Yasuda, Kazuo, Ousawa, and Takeuchi. Re. 26,855
PPG Industries, Inc.: *See*—
Wahl, Edward F. Re. 26,869.
Pacak, Matthew: *See*—
Getz, Edward T., and Pacak. Re. 26,946.
Getz, Edward T., and Pacak. Re. 26,947.
Pace Corp.: *See*—
Corey, Dwight O. Re. 26,806.
Packard, Norman M., and H. R. Cook, to International Harvester Co. Piston. Re. 26,764, 1–13–70, Cl. 92—187.
Palmer, David A., to Hercules Inc. Preparation of cellular polyolefins. Re. 26,850, 4–7–70, Cl. 260—2.5.
Pan American Petroleum Corp.: *See*—
Hujsak, Karol L., Grekek, and Mungen. Re. 26,773.
Parapetti, Nicolas. Diamond dressing device. Re. 26,920, 6–23–70, Cl. 125—11.
Parker, Norman W.: *See*—
Hilbert, Francis H., and Parker. Re. 26,925.
Parker, Norman W., to Motorola, Inc. Color television demodulation system. Re. 26,924, 6–30–70, Cl. 178—5.4.
Patrick, Alan E., to General Time Corp. Translator alarm clock. Re. 26,817, 3–10–70, Cl. 58—38.
Patterson, Joseph M., and E. B. Wilson, Jr., to FMC Corp. Pruning machine. Re. 26,793, 2–17–70, Cl. 56—235.
Pawloski, James A. Fluid operated hand tool. Re. 26,834, 3–24–70, Cl. 81—1.
Paynter, Howard L., V. M. Tyler, and D. F. Satterlee, to Martin-Marietta Corp. Free-fall test facility. Re. 26,784, 2–3–70, Cl. 73—432.
Pecis, John G., to Speakman Co. Color indicator for push-pull faucet. Re. 26,838, 3–24–70, Cl. 137—556.
Pedersen, Arne B.: *See*—
Jorgensen, Niels C. Re. 26,766.
Pellegrini, Frank L. Stenographic apparatus providing punched tape record. Re. 26,981, 11–17–70, Cl. 234—1.
Pennwalt Corp.: *See*—
Keith, Frederick W., Jr. Re. 26,986.
Pereira, John P., to Weatherking Products, Inc. Swimming pool construction. Re. 26,977, 11–3–70, Cl. 4—172.19.
Petroff, Robert J., Intermittent mechanism and method of making the same. Re. 26,979, 11–17–70, Cl. 74—817.
Pfeiffer, Claes F. H., and V. O. Valanti, by Elektriska Svetsningsaktiebolaget. Arc welding of unalloyed structural steel workpieces such as hull-plates, and arc welding electrodes thereof. Re. 26,755, 1–6–70, Cl. 219—137.
Phillips Petroleum Co.: *See*—
Wiley, Fred E. Re. 26,956.
Pinckney Molded Plastics, Inc.: *See*—
Kreeger, Elsmer W. Re. 26,758.
Plumb, Charles C. Apparatus for storing and distributing heated asphalt mix. Re. 26,786, 2–10–70, Cl. 259—151.
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Ainslie, Dianne B., and A. H. Crapsey, to Eastman Kodak Co. Film cartridge or the like. 217,302, 4–21–70, Cl. D61—1.
Ainslie, Dianne B., and A. H. Crapsey, to Eastman Kodak Co. Film cartridge or the like. 217,303, 4–21–70, Cl. D61—1.
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Alaska, St. Barth. Combined adhesive magnetic-electric tape and power source therefor. 218,039, 7–14–70, Cl. D26—1.
Albrecht, Leonard N., to Dymedia, Inc. Teaching machine in the form of a student response board. 218,037, 7–14–70, Cl. D25—1.
Al-Craft Mfg. Co. : *See*—
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Alissandratos, Tacko D. Combined cap and bracket for a trash receptacle rack. 219,456, 12–15–70, Cl. D28—1.
Allard, Peter B., and C. L. Lofgren, to The Cornelius Co. Beverage dispensing valve unit. 217,652, 5–19–70, Cl. D94—3.
Allen, Donald H., Jr. Flush lift ring. 219,095, 11–3–70, Cl. D8—108.
Allen, Dorothy K., to F. H. Noble & Co. Combined trophy and trophy support. 216,595, 2–17–70, Cl. D29—28.
Allen, Dorothy K., to F. H. Noble & Co. Trophy. 216,596, 2–17–70, Cl. D29—28.
Allen, Dorothy K. Combined trophy and trophy support. 217,821, 6–16–70, Cl. D29—28.
Allen, Dorothy K., to F. H. Noble & Co. Trophy. 218,819, 8–11–70, Cl. D29—28.
Allen, Dorothy K. Trophy. 218,820, 8–11–70, Cl. D29—28.
Allen, James A. Game board. 217,169, 4–14–70, Cl. D34—5.
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Allen, Robert Y. : *See*—
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Alvarez, Fernando, to Morgantown Glassware Guild Inc. Goblet or similar article. 217,878, 6–23–70, Cl. D36—8.
Alwin Mfg. Co., Inc.: *See*—
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Amada, Isamu. Band type cutting saw or the like. 217,799, 6–9–70, Cl. D93—3.
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Andre, Dan M. High intensity lamp. 217,881, 6–23–70, Cl. D48—20.
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Angelakos, Nicholas P., to Lancaster Colony Corp. Rest for a smoking pipe. 218,057, 9–8–70, Cl. D85—8.
Angelakos, Nicholas P., to Lancaster Colony Corp. Ice bucket, or the like. 218,967, 9–15–70, Cl. D44—1.
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Aylott, Eric V. Combined container and artificial fingernails. 217,436, 5–5–70, Cl. D9—187.
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Barbaresi, Ivo, to Salvatore Ferragamo S.p.A. Heel for lady's shoe. 216,664, 3–3–70, Cl. D2—325.
Barbaresi, Ivo, to Salvatore Ferragamo S.p.A. Heel for lady's shoe. 216,665, 3–3–70, Cl. D2—325.
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Barrett, Michael H., C. D. Keyes, and J. T. Ream, to Ketchum, Konkel, Barrett, Nickel and Austin, Inc. Expendable concrete form member. 216,586, 2–17–70, Cl. D13—1.
Barricks, Joseph B. Musical instrument. 218,481, 8–18–70, Cl. D56—1.
Barry, James L., T. R. Mitchell, and R. O. Vaa, to The Barbers Hairstyling for Men, Inc. Razor. 217,752, 6–2–70, Cl. D95—3.
Bartee, Edward L., ½ to B. B. Greene. Four-way pallet. 217,860, 6–23–70, Cl. D14—3.
Bartee, Edward L., ½ to B. B. Greene. Pallet. 217,861, 6–23–70, Cl. D4—3.
Bartels, Dorothy S.: *See*—
Bartels, William R. and D. S. Teether and pacifier combination. 219,631, 12–29–70, Cl. D83—8.
Bartels, William R. and D. S. Teether and pacifier combination. 219,631, 12–29–70, Cl. D90—20.
Bartlett, Eric C. Tire. 219,498, 12–15–70, Cl. D90—20.
Bartlett, Eric C., to The Dunlop Co. Ltd. Tire. 219,499, 12–15–70, Cl. D90—20.
Bartlett, Eric C., to The Dunlop Co. Ltd. Tire. 219,500, 12–15–70, Cl. D90—20.
Baskin-Robbins Inc.: *See*—
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Basner, Ernest L., to Sealy, Inc. Mattress. 218,389, 8–18–70, Cl. D5—2.
Basner, Margarete. Water closet cover. 217,248, 4–21–70, Cl. D23—68.
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Specht, Gaylord D., and Bassin. 216,911.
Basto, Joaquim F. P. Angel figurine. 216,642, 2–24–70, Cl. D29—23.
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Bateman, Robert F., and T. E. Brown, to Dart Industries Inc. Toy bank. 218,626, 9–8–70, Cl. D34—11.
Bates, Bobby L.: *See*—
Bates, Wesley V. and B. L. 216,691.
Bates Industries, Inc.: *See*—
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Bates, Wesley V. and B. L., to Jacketing Specialty. Pedestal chlorinator unit for swimming pools or the like. 216,691, 3–3–70, Cl. D23—3.
Batham, Dennis T., T. E. Sladek, G. L. Diry, and R. W. Spencer, to The Susquehanna Corp. Boat. 217,032, 3–24–70, Cl. D71—1.
Batham, Dennis T., T. E. Sladek, G. L. Diry, and R. W. Spencer, to The Susquehanna Corp. Boat. 217,033, 3–24–70, Cl. D71—1.
Batham, Dennis T., T. E. Sladek, G. L. Diry, and R. W. Spencer, to The Susquehanna Corp. Boat hull. 217,034, 3–24–70, Cl. D71—1.
Bathurst Sales Ltd.: *See*—
Wells, Bertram B. 217,515.
Wells, Bertram B. 217,516.
Batts, John H., to John Thomas Batts, Inc. Garment hanger. 217,746, 6–2–70, Cl. D80—8.
Batts, John H., to John Thomas Batts, Inc. Garment hanger. 217,747, 6–2–70, Cl. D80—8.
Batts, John H., to John Thomas Batts, Inc. Garment hanger. 217,753, 6–2–70, Cl. D80—8.
Batts, John Thomas, Inc.: *See*—
Batts, John H. 217,746.
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Bauer Ordnance Co.: *See*—
Bauer, Russell E. 216,875.
Bauer, Russell E., to Bauer Ordnance Co. Armored motor vehicle. 216,876, 3–17–70, Cl. D14—3.
Bauer, Russell E., to KDI-Bauer Corp. Armored motor vehicle. 219,139, 11–10–70, Cl. D14—3.
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Baxter Laboratories, Inc.: *See*—
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Goyke, Leonard F. 217,788.
Bayne, Frank E., Jr., and L. V. Indicator plaque. 219,093, 10–27–70, Cl. D96—12.
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Bearse, Robert E. Telephone switchboard. 216,428, 1–6–70, Cl. D26—14.
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Beavers, Jack L., to Design Products, Inc. Desk unit. 219,279, 11–24–70, Cl. D83—7.
Beck, Theodore A., to Scovill Mfg. Co. Combined valve actuator and dispensing head for an aerosol container. 216,950, 3–24–70, Cl. D9—259.
Becker, Julius D. Whirling amusement device. 218,694, 9–15–70, Cl. D34—15.
Becker, Robert W., and D. P. Chuboff, to Zenith Radio Corp. Radio cabinet. 217,986, 7–7–70, Cl. D56—4.
Becker, Robert W., and M. H. Boldt, to Zenith Radio Corp. Radio cabinet. 218,647, 9–8–70, Cl. D56—4.
Becker, Robert W., and M. H. Boldt, to Zenith Radio Corp. Clock radio cabinet. 218,711, 9–15–70, Cl. D56—4.
Becker, Robert W., and Melvin H. Boldt, to Zenith Radio Corp. Radio cabinet. 218,952, 10–13–70, Cl. D56—4.
Becker, Robert W., and D. P. Chuboff, to Zenith Radio Corp. Cassette tape recorder. 219,385, 12–8–70, Cl. D26—14.
Beckman, Glenn B., to Corning Glass Works. Supporting cradle for a serving dish or the like. 217,782, 6–9–70, Cl. D44—10.
Beckman, Glenn B., and R. A. Bruce, to Corning Glass Works. Serving tray. 219,050, 10–27–70, Cl. D44—10.
Bee, James W. M., to Marr Electric Ltd. Electrical connector. 218,040, 7–14–70, Cl. D26—1.
Beeby, John E., to The Clorox Co. Combined bottle and cap therefor. 217,129, 4–14–70, Cl. D9—90.
Beeman, Everett C., to Monsanto Co. Jug. 216,582, 2–17–70, Cl. D9—41.
Beeman, Everett C., to Monsanto Co. Bottle. 219,097, 11–3–70, Cl. D9—63.
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Beitler, Myron, and J. M. Chambers, to Litton Business Systems, Inc. Casing for a calculating machine or similar article. 219,116, 11–3–70, Cl. D64—11.
Beguiristain, Luis, to The Torit Corp. Oral evacuator power unit. 217,769, 6–9–70, Cl. D24—1.
Belcher, James J., to Clary Corp. Data printer. 219,625, 12–29–70, Cl. D64—11.

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Bellamy, David, Jr., and P. G. Ralston, to Baxter Laboratories, Inc. Sealed bag for liquids. 218,500, 8–18–70, Cl. D83—1.
Bellem, Norman A., J. W. Harter, and P. E. Swain, to Butler Mfg. Co. Building roof panel. 217,932, 6–30–70, Cl. D54—2.
Bellini, Mario, to Ing. C. Olivetti & C., S.p.A. Combined input/output and visual display unit for a computer. 217,847, 4–28–70, Cl. D26—5.
Belokin, Paul, Jr. Car carrier case. 216,966, 3–24–70, Cl. D14—27.
Belokin, Paul, Jr. Hand gun case. 217,998, 7–7–70, Cl. D87—1.
Belokin, Paul, Jr. Gun case. 217,999, 7–7–70, Cl. D87—1.
Belokin, Paul, Jr. Tackle box. 218,266, 8–4–70, Cl. D87—1.
Belokin, Paul, Jr. Suit case. 218,267, 8–4–70, Cl. D87—5.
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Benes, Frank J., to Anchor Hocking Corp. Tumbler or similar article. 217,826, 6–16–70, Cl. D36—8.
Benes, Frank J., to Anchor Hocking Corp. Pitcher or similar article. 219,045, 10–27–70, Cl. D36—2.
Benjamin, Marshall E. Portable animal enclosure. 219,275, 11–24–70, Cl. D30—1.
Benjamin, Marshall E. Portable animal enclosure. 219,276, 11–24–70, Cl. D30—1.
Benjamin, Marshall E. Portable animal enclosure. 219,277, 11–24–70, Cl. D30—1.
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Bennett, Robert A. Golfer's accessory kit. 216,816, 3–10–70, Cl. D34—5.
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Benton, Richard H. Toy truck. 218,561, 9–1–70, Cl. D34—15.
Benz, Robert P. Display stand. 218,370, 8–11–70, Cl. D80—9.
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Bergman, Harry, to Butler Specialty Co. Frame for a clock or the like. 218,187, 7–28–70, Cl. D42—7.
Bergman, Harry, to Butler Specialty Co. Frame for a clock or the like. 218,188, 7–28–70, Cl. D42—7.
Bergman, Harry, to Butler Specialty Co. Frame for a clock or the like. 218,468, 8–18–70, Cl. D42—7.
Bergman, Harry, to Butler Specialty Co. Frame for a clock or the like. 218,469, 8–18–70, Cl. D42—7.
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Bernard, Herman W. Panel for a cabinet door. 218,049, 7–14–70, Cl. D33—1.
Bernard, Herman W. Side rail for a table. 218,449, 8–18–70, Cl. D33—14.
Bernard, Herman W. Table. 218,450, 8–18–70, Cl. D33—14.
Bernard, Herman W. Side rail for a table. 218,451, 8–18–70, Cl. D33—14.
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Levin, Monte L., and Bernstein. 216,755.
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Beyer, Louis E. Combined hand dryer and advertising display. 218,427, 8–18–70, Cl. D23—74.
Biallo, Thomas. Carton or similar article. 218,677, 9–15–70, Cl. D9—230.
Biallo, Thomas M. Carton or similar article. 219,266, 11–24–70, Cl. D9—230.
Bich, Marcel L. M. A., to Societe Bic, Societe Anonyme de Droit Francais. Ball point pen. 218,492, 8–18–70, Cl. D74—17.
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Biggar, Ralph W. Combination towel dispenser and receptacle therefor. 219,066, 10–27–70, Cl. D52—2.
Billings, Le Roy E., Jr. Manual excavating filter. 219,530, 12–22–70, Cl. D89—1.
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Birchard, Jesse R., A. D. Mortrude, and R. C. Conner, to The Cortez Corp. Side panel unit for a vehicle. 218,416, 8–18–70, Cl. D14—6.
Birchard, Jesse R., A. D. Mortrude, and R. C. Conner, to The Cortez Corp. Grille for a vehicle. 218,417, 8–18–70, Cl. D14—18.
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Bixler, Kenneth D., and R. E. Ralphs, to Diamond International Corp. Produce package. 217,329, 4–28–70, Cl. D9—219.
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Bloch, Jack, to Foster Grant Co., Inc. Pair of spectacles. 218,127, 7–21–70, Cl. D57—1.
Bloch, Jack, to Foster Grant Co., Inc. Pair of spectacles. 218,128, 7–21–70, Cl. D57—1.
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Bogan, Robert T., Jr. Grille. 218,734, 9–22–70, Cl. D13—1.
Bogan, Robert T., Jr. Grille. 218,735, 9–22–70, Cl. D13—1.
Bogan, Robert T., Jr. Grille. 219,578, 12–29–70, Cl. D13—1.
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Cassidy, Raymond T., and M. K. Hegemann, to Sperry Rand Corp. Carrying case for a portable electrical appliance. 217,316, 4–21–70, Cl. D86—10.

Castelli, Charles, and E. E. Hoyt, to Johnson & Johnson. Tape dispenser. 218,861, 9–29–70, Cl. D74—1.

Castelli, Charles, and L. Jerzewski, Jr., to Johnson & Johnson. Compartmented packaging tray. 219,263, 11–24–70, Cl. D9—189.

Casterlin, James H., to Kollmorgen Corp. Photometric instrument. 217,987, 7–7–70, Cl. D61—1.

Casterlin, James H., to Kollmorgen Corp. Color analyzer instrument. 217,988, 7–7–70, Cl. D61—1.

Castor, Richard H. Bridge support for bi-focal glasses. 219,309, 11–24–70, Cl. D57—1.

Castorani, Francesco P., to Quaker Lace Co. Tablecloth. 216,936, 3–17–70, Cl. D92—26.

Castorani, Francesco P., to Quaker Lace Co. Tablecloth. 218,081, 7–14–70, Cl. D92—26.

Catelli, Piero. Revolving case for clinic thermometers for zero setting the scale thereof. 217,022, 3–24–70, Cl. D52—7.

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Cedar, Samuel N. Link chain for bracelets or the like. 216,909, 3–17–70, Cl. D45—4.

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Chadbourne, Gilbert R., to Keyes Fibre Co. Packaging tray. 218,089, 7–21–70, Cl. D9—243.

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Chamlee, Tilmon, to Shrimp Boats, Inc., The. Carry out restaurant. 217,055, 3–31–70, Cl. D13—1.

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Channing, Harry M., to General Battery Corp. Battery display merchandiser. 219,249, 11–17–70, Cl. D80—9.

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Chapin, Richard M., to C. B. Atkin Co. Furniture panel or the like. 217,774, 6–9–70, Cl. D33—1.

Chapin, Richard M., to C. B. Atkin Co. Chest or the like. 217,917, 6–30–70, Cl. D33—6.

Chapin, Richard M., to Dolly Madison Industries. Corner sofa and table combination or the like. 219,143, 11–10–70, Cl. D15—11.

Chapman, Anthony C. B. Model racing car 218,944, 10–13–70, Cl. D34—15.

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Chapman, Anthony C. B., to Lotus Components Ltd. Model racing car. 219,160, 11–10–70, Cl. D34—15.

Chapman, Anthony C. B., to Lotus Cars Ltd. Model racing car. 219,161, 11–10–70, Cl. D34—15.

Chapman, Anthony C. B., to Lotus Cars Ltd. Model racing car. 219,231, 11–17–70, Cl. D34—15.

Chapman, Joseph H. Pressure washer. 217,021, 3–24–70, Cl. D49—11.

Chapman, Richard L. Exercise device. 218,454, 8–18–70, Cl. D34—5.

Charles, Randolph E. Instrument receiving bin. 218,609, 9–8–70, Cl. D26—5.

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Chuboff, David P., and J. P. Stevens, to Zenith Radio Corp. Monopulse defibrillator. 217,648, 5–19–70, Cl. D83—1.
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Clementi, Leonard C., to Cannon Mills Co. Towel or similar article. 217,047, 3–24–70, Cl. D92—26.
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Clementi, Leonard C., to Cannon Mills Co. Textile fabric. 218,663, 9–8–70, Cl. D92—1.
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Cookman, Deborah L. Hackamore attachment to a bit. 219,151, 11–10–70, Cl. D30—21.
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Cordero, Rene, and R. V. Jones, to Texas Instruments Inc. Fluid flow sensor. 218,984, 10–13–70, Cl. D26—13.
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Cousins, Morison S., R. L. Klawson, and R. Watson, to General Foods Corp. Measuring cup. 218,472, 8–18–70, Cl. D44—21.
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Couve, Carl, to The Mead Corp. Safety paper or similar article. 217,575, 5–12–70, Cl. D59—6.
Couve, Carl, to The Mead Corp. Safety paper or similar article. 217,576, 5–12–70, Cl. D59—6.
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Crandall, Eugene L. Base for an article of furniture. 218,422, 8–18–70, Cl. D15—1.
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Dallaire, Raymond M. Extruded frame for a door mounted window. 216,957, 3–24–70, Cl. D13—6.
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Douglas, Livingston C., to Colgate-Palmolive Co. Combined bottle and cap therefor. 217,589, 5–19–70, Cl. D9—117.

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Foster, Merle L. Bow sling. 216,425, 1–6–70, Cl. D22—99.
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Gibson, Robert R., to Corning Glass Works. Casserole cover. 219,614, 12–29–70, Cl. D44—15.

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Gompes, Simon, and H. Schpektor. Educational geometric puzzle. 218,242, 8–4–70, Cl. D25—1.

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Gorman, William J., J. G. Markert, and J. G. Reed, to GMR, Inc. Bedpan. 218,501, 8–18–70, Cl. D83—1.

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Gortz, Norman, and M. B. Maccarone. Pressurized dispensing container. 219,126, 11–10–70, Cl. D9—9.

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Gotze, Erich, 25% to A. H. Hess and 50% to H. Dorsey. Claw setting. 217,493, 5–5–70, Cl. D45—1.

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Goyke, Leonard F., and R. B. Farbe, to Baxter Laboratories, Inc. Handle for safety razor or the like. 218,001, 7–7–70, Cl. D95—3.

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Grange, Kenneth, to Dysona Industries Ltd. Microwave oven. 218,919, 10-6-70, Cl. D81—4.
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Grange, Kenneth H., to International Standard Electric Corp. Cabinet for telecommunication and sound reproduction equipment. 218,613, 9-8-70, Cl. D26—14.
Granowitz, Jack M., F. J. Marocco, and G. S. Buccino, to American Cyanamid Co. Dispenser for disposable nail cleaners. 216,754, 3-3-70, Cl. D86—10.
Granrath, Gunter, to Kortenbach & Rauh Kommanditgesellschaft. Auxiliary umbrella runner. 219,194, 11-10-70, Cl. D88—3.
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Greco, Mauro C. Combined door bell ringer and address display. 216,866, 3-17-70, Cl. D8—180.
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Greenlee, Hugh T., to Ashtabula Bow Socket Co. Cycle pedal tread block. 216,858, 3-10-70, Cl. D90—14.
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Guodace, Frank K., to International Silver Co. Spoon or similar article of flatware. 218,123, 7-21-70, Cl. D54—12.
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Hannah, Bruce R., F. G. La Morte, and F. L. Kratcoski, to Dynagraphic Systems, Inc. Copy-making apparatus. 218,990, 10-20-70, Cl. D61—1.
Hanney, William L., to Taco Tico, Inc. Building. 217,238, 4-21-70, Cl. D13—1.
Hannon, Charles N., to W. W. Hannon. Conveyor. 218,480, 8-18-70, Cl. D55—1.
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Hansen, Albert T. Furniture arm tray. 218,244, 8-4-70, Cl. D33—14.
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Harden, Birt R. Combination spare tire and wheel carrier. 216,967, 3-24-70, Cl. D14—6.
Hardie, Reginald O., to Nyman Mfg. Co. Holder for disposable drinking cup. 217,011, 3-24-70, Cl. D44—10.
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Harlang, Bent, and J. P. C. Rasmussen, to Kevi A/S. Furniture slide. 218,592, 9-8-70, Cl. D8—227.
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Harness, Gaylord J. Grass guard for a sprinkler. 217,768, 6-9-70, Cl. D23—7.
Harris, Pincus J., to Empire Brushes, Inc. Holder for brushes or the like. 218,771, 9-22-70, Cl. D44—29.
Harris, Pincus J., to Empire Brushes, Inc. Holder for brushes or the like. 218,772, 9-22-70, Cl. D44—29.
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Harrison, Marilyn B. Combined crib and storage cabinet. 218,271, 8-11-70, Cl. D5—5.
Hart, Claude A., to The Dunlop Co. Ltd. Tire. 218,660, 9-8-70, Cl. D90—20.
Hart, Richard S., to Morton International, Inc. Dispensing container. 218,593, 9-8-70, Cl. D9—207.
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Hartley, Robert B., to The Cornelius Co. Beverage dispenser. 218,083, 7-14-70, Cl. D94—3.
Hartman, Bruce C., to Booth Fisheries, division of Consolidated Foods Corp. Combined food packaging and cooking container. 219,134, 11-10-70, Cl. D9—219.
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Harty, Millard F., and A. C. Hitchcock, to The Shaw-Walker Co. Chair. 218,559, 9-1-70, Cl. D15—1.
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Hasty, Robert A., and W. W. McKinney, to N & H Instruments, Inc. Invalid aid. 216,523, 1-27-70, Cl. D83—1.
Hata, Kotaro, and T. Fujii, to Matsushita Electric Industrial Co., Ltd. Rim for bicycle wheel. 216,785, 3-10-70, Cl. D14—30.
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Heiser, Kenneth R. Shelter. 216,959, 3-24-70, Cl. D13—1.
Heitz, Charles T. Device for holding a flexible liner in receptacles. 217,020, 3-24-70, Cl. D49—30.

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Hunnicutt, Wayne E., and P. G. Rossbach, to Applied Power Industries, Inc. Extension clamp for automobile body and frame repair system. 217,631, 5–19–70, Cl. D41—1.
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Kahler, David L., and E. A. Stoner, to General Electric Co. Phonograph spindle adaptor for 45 r.p.m. records or similar article. 218,483, 8–18–70, Cl. D56—4.
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Kahn, Robert D., to Fedtro, Inc. Television interference filter. 217,256, 4–21–70, Cl. D26—14.
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Kapper, Henry, and D. M. Savio, to International Business Machines Corp. Data entry station. 216,799, 3–10–70, Cl. D26—5.
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Kaufman, Irene. Eyeliner-brush. 217,199, 4–14–70, Cl. D86—10.
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Keller, Huey T., to Empire Furniture Corp. Decorative panel for furniture or the like. 218,758, 9–22–70, Cl. D33—1.
Keller, Huey T., to Empire Furniture Corp. Decorative ornament for a mirror or the like. 218,761, 9–22–70, Cl. D33—9.
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Kenney, Myron A. Scuba diving device. 217,035, 3–24–70, Cl. D71—1.
Kermes, Constantine J., to Sperry Rand Corp. Self-propelled agricultural mowing conditioning machine. 216,906, 3–17–70, Cl. D40—1.
Kermes, Constantine J., to Sperry Rand Corp. Cab for a bale wagon. 217,177, 4–14–70, Cl. D40—1.
Kermes, Constantine J., and H. N. Lausch, to Sperry Rand Corp. Agricultural mowing conditioning machine. 217,276, 4–21–70, Cl. D40—1.
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Kikuchi, Yoshito. Insulated jug or the like. 218,354, 8–11–70, Cl. D44—21.
Kikukawa, Ryosuke, F. Hamatani, M. Kuwabara, and A. Mori, to Bridgestone Tire Co. Ltd. Dock fender. 216,449, 1–6–70, Cl. D71—1.
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Kissig, Robert, to Feigenson, Inc. Bottle. 217,230, 4–21–70, Cl. D9—119.
Kitai, Isao, to Sharp Kabushiki Kaisha. Calculating machine. 218,993, 10–20–70, Cl. D64—11.
Kitson, Gerald L. Mechanical feeder for caged poultry. 216,705, 3–3–70, Cl. D30—13.
Kitson, Gerald L. Poultry cage. 216,898, 3–17–70, Cl. D30—41.
Kitson, Gerald L. Wire cage skeletal structure having trough beam and wire panel ribs. 218,174, 7–28–70, Cl. D30—41.
Klamer, Reuben B. Egg-shaped toy figure. 216,901, 3–17–70, Cl. D34—2.
Klamer, Reuben B. Egg-shaped toy. 216,997, 3–24–70, Cl. D34—2.
Klamer, Reuben B. Combined doll house and package. 217,326, 4–28–70, Cl. D9—197.
Klamer, Reuben B. Egg-shaped toy. 217,368, 4–28–70, Cl. D34—2.
Klamer, Reuben B., R. Y. Allen, and M. Shaw. Body component for an animal toy or the like. 217,165, 4–14–70, Cl. D34—2.
Klancke, John H., to Puratronics Industries, Inc. Water line heater for vehicles or the like. 216,793, 3–10–70, Cl. D23—86.
Klarer, Saul. Shopping bag handle or similar article. 218,290, 8–11–70, Cl. D9—292.
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Kliewer, Donald L., to The Telex Corp. Headphone earpiece. 218,103, 7–21–70, Cl. D26—14.
Kline, Richard L., to Deviline Inc. Bottle. 218,283, 8–11–70, Cl. D9—118.
Klober, Johannes, to Firma Hans Klober Schwelm. Drinking glass or the like. 219,471, 12–15–70, Cl. D36—8.
Kloster, William R., to Carver Foundry Products. Mulling arm made up of identical individual blades. 217,391, 4–28–70, Cl. D55—1.
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Knowles, Alvis R., to Eldon Industries, Inc. Desoldering tool. 218,274, 8–11–70, Cl. D8—30.
Knowles, Alvis R., to Eldon Industries, Inc. Desoldering tool. 218,275, 8–11–70, Cl. D8—30.
Knowles, Alvis R., to Eldon Industries, Inc. Desoldering tool. 218,276, 8–11–70, Cl. D8—30.
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Koch, Karl W. Beer can. 216,422, 1–6–70, Cl. D9—195.
Koch, Samuel J. Desk-type cigarette lighter. 216,533, 2–3–70, Cl. D48—27.

Koch, Walter L., K. A. Day, and G. R. Huyler, to Rowe International, Inc. Vending machine cabinet. 217,930, 6–30–70, Cl. D52—8.
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Kodinsky, Harry, to Kiads, Inc. Display unit. 218,653, 9–8–70, Cl. D80—11.
Koenig, Harold. Pants. 217,082, 4–7–70, Cl. D2—28.
Koenigsberg, Victor, to Colgate-Palmolive Co. Bottle or similar article. 217,590, 5–19–70, Cl. D9—118.
Koenigsberg, Victor, to Colgate-Palmolive Co. Bar of soap or similar article. 217,889, 6–23–70, Cl. D73—1.
Koenigsberg, Victor, to Colgate-Palmolive Co. Bar of soap or similar article. 217,891, 6–23–70, Cl. D73—1.
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Koziol, Walter, to Charmglow Mfg. Co. Cooking apparatus. 219,081, 10–27–70, Cl. D81—10.
Koziol, Walter, to Charmglow Mfg. Co. Combined cart and cooking apparatus. 219,629, 12–29–70, Cl. D81—10.
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Krainin, Ewing. Display stand. 219,562, 12–22–70, Cl. D80—9.
Krainin, Ewing. Display stand. 219,563, 12–22–70, Cl. D80—9.
Kramer, Gideon A., to American Desk Manufacturing Co. Armchair. 218,887, 10–6–70, Cl. D15—1.
Krantz, John D., to Coastal Dynamics Corp. Dental console unit. 217,249, 4–21–70, Cl. D24—1.
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Kress, George H., to Harvey Hubbell, Inc. Electrical wiring device. 217,615, 5–19–70, Cl. D26—1.
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Kuhns, Roger J., to Avant Inc. Plastic I.D. card laminating machine or similar article. 218,484, 8–18–70, Cl. D63—1.
Kuhns, Roger J., to Avant Inc. Die cutter for developed film or similar article. 219,409, 12–8–70, Cl. D61—1.
Kulbe, George O. Waterborne vehicle. 219,485, 12–15–70, Cl. D71—1.
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Lagerstrom, Robert C., and S. E. Hohulin, to National Union Electric Corp. Suction cleaner. 217,737, 6–2–70, Cl. D49—14.
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Lamb, Thomas, to The Hughes-Owens Co. (Ltd.). Drawing table unit. 217,477, 5–5–70, Cl. D33—14.
Lamb, Thomas, to The Hughes-Owens Co. (Ltd.). Drawing table. 217,478, 5–5–70, Cl. D33—14.
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Lambert, Gordon C., D. E. Shoemaker, and R. C. Gann. School desk. 216,710, 3–3–70, Cl. D83—11.
Lambert, Kathy D., to Marvin Glass & Associates. Girl's apron. 218,384, 8–18–70, Cl. D2—228.
Lambert, Kathy D., to Marvin Glass & Associates. Girl's apron. 218,588, 9–8–70, Cl. D2—228.
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Lamborghini, Ferruccio. Automobile. 217,905, 6–30–70, Cl. D14—3.
Lammert, Frederick R., to National Heritage Corp. Bottle. 217,126, 4–14–70, Cl. D9—33.
Lammert, Frederick R., to National Heritage Corp. Bottle. 217,127, 4–14–70, Cl. D9—33.
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Lange, Carl W. Spinning wheel toy. 219,527, 12–22–70, Cl. D34—15.
Lange, Gregory R. Rotatable magazine table. 219,108, 11–3–70, Cl. D33—14.
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Lankowitz, Raymond G. Flower receptacle. 217,877, 6–23–70, Cl. D35—3.
Lankowitz, Raymond G. Snow sled. 218,461, 8–18–70, Cl. D34—15.
Lankowitz, Raymond G. Snow sled. 218,462, 8–18–70, Cl. D34—15.
Lanoie, Raymond A., to Lew Mfg. Co. Writing instrument. 216,925, 3–17–70, Cl. D74—17.
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Emberton, Ben T., and La Penta. 219,280.
La Police, George D.: *See*—
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La Police, George D., W. A. Current, and C. R. Newburgh, to The Singer Co. Canister vacuum cleaner or similar article. 218,777, 9–22–70, Cl. D49—14.1.
Larrowe, John W. Combined game chip holder and coaster tray or the like. 219,523, 12–22–70, Cl. D34—13.
Larsen, Charles A., to Gorton Machine Corp. Metal working machine. 217,890, 4–28–70, Cl. D54—14.
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Larsen, Reid S., and C. A. Elggren. Combined television receiver and support stand therefor. 219,480, 12–15–70, Cl. D56—4.
Larsen, Robert R., to Transportation Technology, Inc. Body for passenger vehicles. 218,995, 10–20–70, Cl. D66—1.
Larsen, Robert R., to Transportation Technology, Inc. Passenger vehicle body. 218,996, 10–20–70, Cl. D66—1.
Larson, Arnold J. Garbage can lid protector or similar article. 217,070, 3–31–70, Cl. D49—35.
Larson, Orville W., to Ampex Corp. Cassette transport. 216,894, 3–17–70, Cl. D26—14.
Larson, Orville W., to Ampex Corp. Cassette transport. 217,677, 5–26–70, Cl. D26—14.
Larson, Orville W., to Ampex Corp. Cassette transport. 217,820, 6–16–70, Cl. D26—14.
Larson, Orville W., to Ampex Corp. Cassette transport. 218,317, 8–11–70, Cl. D26—14.
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Schmidt, Joseph J., and Frank. 218,432.
Lasker, Helen P. Game board. 218,453, 8–18–70, Cl. D34—5.
Latham, Peter A., and P. E. Brefka, to Debel Mfg. Corp. Package for fragile articles. 219,132, 11–10–70, Cl. D9—182.
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Latham, Richard S., to Rosenthal Aktiengesellschaft. Combined saucepan and cover therefor. 216,729, 3–3–70, Cl. D44—1.
Latham, Richard S., to Rosenthal Aktiengesellschaft. Combined beverage server and cover therefor. 216,732, 3–3–70, Cl. D44—21.
Lattraye, Marcel. Bottle. 218,018, 7–14–70, Cl. D9—61.
Lattraye, Marcel. Bottle. 218,019, 7–14–70, Cl. D9—73.
Lauer, Darrel A., to Ampex Corp. Transmitter. 218,753, 9–22–70, Cl. D26—14.
Lauer, Darrel A., to Ampex Corp. Transmitter. 218,754, 9–22–70, Cl. D26—14.
Laufer, Murray. Set of chess pieces. 219,037, 10–27–70, Cl. D34—5.
Laughlin, Clayton A., to Arthur Salm Inc. Combined letter opener and scissors or similar desk tool. 217,707, 6–2–70, Cl. D8—104.
Laughlin, Clayton A., to Arthur Salm, Inc. Carving fork or the like. 217,923, 6–30–70, Cl. D44—29.
Laughlin, Clayton A., to Arthur Salm, Inc. Pocket knife or similar article. 218,729, 9–22–70, Cl. D8—9.
Lauper, Warner R., to Adams Rite Mfg. Co. Combined latch case and actuator. 218,672, 9–15–70, Cl. D8—109.
Laupot, Richard. Blower fan. 219,588, 12–29–70, Cl. D28—155.
Lausch, Henry N.: *See*—
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Laverty, George K. Three wheel motorcycle. 219,253, 11–17–70, Cl. D90—8.
LaViolette, Paul A., and R. E. Domian, to Colt's Inc. Handgun. 219,019, 10–27–70, Cl. D22—1.
LaViolette, Paul A., and R. E. Domian, to Colt's Inc. Handgun. 219,020, 10–27–70, Cl. D22—1.
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Fier, Edward, Jr. 218,466.
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Lawrence, Paul A. Combined telephone handset with handle and shoulder rest therefor. 218,172, 7–28–70, Cl. D26—14.
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Lawrence, Robert C., Sr., and R. C. Lawrence, Jr. Nozzle. 218,824, 9–29–70, Cl. D23—34.
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Lawshe, Henry L., to Tra-Vel, Inc. Information-center building. 217,236, 4–21–70, Cl. D13—1.
Lawshe, Henry L., to Tra-Vel, Inc. Information-center building. 217,237, 4–21–70, Cl. D13—1.
Lawson, Sid, to Sun Oil Co. Jacket. 218,587, 9–8–70, Cl. D2—183.
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Lawton, Edward H., to Owens-Illinois, Inc. Bottle. 216,616, 2–24–70, Cl. D9—1.
Lawton, Edward H., to Owens-Illinois, Inc. Bottle. 216,617, 2–24–70, Cl. D9—1.
Lawton, Edward H., to Owens-Illinois, Inc. Bottle. 216,618, 2–24–70, Cl. D9—1.
Lawton, Edward H., to Owens-Illinois, Inc. Bottle. 216,619, 2–24–70, Cl. D9—1.
Lawton, Edward H., to Owens-Illinois, Inc. Bottle. 216,620, 2–24–70, Cl. D9—1.
Lawton, Edward H., to Owens-Illinois, Inc. Bottle. 216,621, 2–24–70, Cl. D9—1.
Lawton, Edward H., to Owens-Illinois, Inc. Bottle. 216,622, 2–24–70, Cl. D9—12.
Lawton, Edward H., to Owens-Illinois, Inc. Bottle. 216,623, 2–24–70, Cl. D9—12.
Lawton, Edward H., to Owens-Illinois, Inc. Bottle. 216,624, 2–24–70, Cl. D9—81.
Lawton, Edward H., to Owens-Illinois, Inc. Bottle. 216,625, 2–24–70, Cl. D9—1.
Lawton, Edward H., to Owens-Illinois, Inc. Bottle. 216,626, 2–24–70, Cl. D9—100.
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Lawton, Edward H., to Owens-Illinois, Inc. Bottle. 216,630, 2–24–70, Cl. D9—140.
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Lawton, Edward H., to Owens-Illinois, Inc. Bottle. 216,633, 2–24–70, Cl. D9—140.
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Lawton, Edward H., to Owens-Illinois, Inc. Bottle. 217,898, 6–30–70, Cl. D9—1.

Lawton, Edward H., to Owens-Illinois, Inc. Bottle. 217,899, 6–30–70, Cl. D9—36.
Lawton, Edward H., and J. R. Nelson, to Owens-Illinois, Inc. Bottle. 216,629, 2–24–70, Cl. D9—100.
Lawton, Edward H., and J. R. Nelson, to Owens-Illinois, Inc. Bottle. 217,850, 6–23–70, Cl. D9—100.
Lax, Michael. Tea kettle or similar article. 218,635, 9–8–70, Cl. D44—25.
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Leath, William S., to Ebsco Industries, Inc. Merchandise display stand. 219,491, 12–15–70, Cl. D80—9.
Leaver, Gardner, to Steelcase Inc. Chair. 218,816, 9–29–70, Cl. D15—1.
Leavitt, Seymour, and B. L. Schneider, to Madison Chemical Corp. Urinal deodorant bar holder. 218,164, 7–28–70, Cl. D23—150.
Lebedeff, Leon V. Lipstick holder. 219,496, 12–15–70, Cl. D86—10.
Lecocq, Samuel G., to Pittman Products, Inc. Pressure regulator for underwater breathing apparatus. 218,921, 10–6–70, Cl. D83—1.
Lee, Aaron, to Chemair Corp. of America. Liquid spray gun. 216,976, 3–24–70, Cl. D23—17.
Lee, Brian W. Orthodontic buccal tube. 217,552, 5–12–70, Cl. D24—1.
Lee, Charles A., and F. D. Sorrells, to Appleton Wire Works Corp. Animal cage cover. 218,044, 7–14–70, Cl. D30—1.
Lee, Charles A., and F. D. Sorrells, to Appleton Wire Works Corp. Animal cage cover. 218,045, 7–14–70, Cl. D30—1.
Lee, Charles A., and F. D. Sorrells, to Appleton Wire Works Corp. Animal cage cover. 218,046, 7–14–70, Cl. D30—1.
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Leibson, Abraham, to E. I. du Pont de Nemours, and Co. Toothbrush case. 218,881, 10–6–70, Cl. D9—285.
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Mackness, Clive R., to Dulmison (Australia) Pty., Ltd. Support for bundled cables. 219,363, 12-8-70, Cl. D8—230.
Mackness, Clive R., to Dulmison (Australia) Pty., Ltd. Support for bundled cables. 219,364, 12-8-70, Cl. D8—230.
Mackness, Clive R., to Dulmison (Australia) Pty., Ltd. Support for bundled cables. 219,365, 12-8-70, Cl. D8—230.
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Macone, Frederick W., to Avant Inc. Time controlled developer for self-developing film or similar article. 218,131, 7-21-70, Cl. D61—1.
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Macowski, William, Jr., to Ketcham & McDougall, Inc. Battery-operated pencil sharpener. 219,318, 11-24-70, Cl. D74—21.
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Madl, Alfred W., and A. R. Bonini, to John Oster Mfg. Co. Massaging shampoo brush. 217,519, 5-5-70, Cl. D83—1.
Madsen, Andrew, to Unitron International Systems, Inc. Airport luminaire. 219,061, 10-27-70, Cl. D48—20.
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Madsen, John S., to GAF Corp. Floor tile or similar article. 218,235, 8-4-70, Cl. D18—2.
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Magi, Hugo, to Aqua-Marine Mfg. Ltd. Boat bumper. 217,645, 5-19-70, Cl. D71—1.
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Nickel, Ewald F., to The Marlin Firearms Co. Decorative plaque for a forearm stock of a firearm. 218,894, 10–6–70, Cl. D22—7.
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Nielsen, Milton R., and R. A. Slouka, to American Hospital Supply Corp. Mobile dental console. 218,167, 7–28–70, Cl. D24—1.
Niemann, James E., to American Standard Inc. Combined bathtub spout, showerhead and control apparatus. 217,548, 5–12–70, Cl. D23—20.
Nightingale, Bernard D. Chair. 218,300, 8–11–70, Cl. D15—1.
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Nigro, Louis V., to The Gillette Co. Pressurized dispensing container. 218,553, 9–1–70, Cl. D9—9.
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O'Brien, David F., and T. A. Mason, to Container Corp. of America. Flying toy. 217,977, 7–7–70, Cl. D34—15.
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Palme, Rudolph J., to Evacuo Enterprises Ltd. Molten metal sampling tube. 217,451, 5–5–70, Cl. D16—1.
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Parduhn, Alfred P. Traffic warning marker. 218,367, 8–11–70, Cl. D72—1.
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Pawlow, Valentin, to Keystone Consolidated Industries, Inc. Hinge. 218,014, 7–14–70, Cl. D8—196.
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Payne, George L., to International Telephone and Telegraph Corp. Wall telephone set. 219,030, 10–27–70, Cl. D26—14.
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Payne, George L., to International Telephone and Telegraph Corp. Wall telephone set. 219,221, 11–17–70, Cl. D26—14.
Payne, George L., to International Telephone and Telegraph Corp. Wall telephone set. 219,222, 11–17–70, Cl. D26—14.
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Pelensky, Walter J. Stringed musical instrument. 217,935, 6–30–70, Cl. D56—1.
Pelensky, Walter J. Stringed musical instrument. 217,936, 6–30–70, Cl. D56—1.
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Pelensky, Walter J. Stringed musical instrument. 218,642, 9–8–70, Cl. D56—1.
Pelensky, Walter J. Stringed musical instrument. 218,643, 9–8–70, Cl. D56—1.
Pelensky, Walter J. Stringed musical instrument. 218,644, 9–8–70, Cl. D56—1.
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Pelensky, Walter J. Stringed musical instrument or similar article. 218,646, 9–8–70, Cl. D56—1.
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Perhacs, Leslie, Jr., to Cragstan Industries, Inc. Push or pull toy. 217,176, 4–14–70, Cl. D34—15.
Perhacs, Leslie, Jr., to Cragstan Industries, Inc. Toy helicopter. 217,488, 5–5–70, Cl. D34—15.
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Reiher, Wilfred L., to Candle World. Candle. 216,745, 3–3–70, Cl. D73—1.
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Rigsby, John W., to Merit Clothing Co., Inc. Head for mannekin. 218,495, 8–18–70, Cl. D80—8.
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Rosenthal, Jack. Toy space exploration vehicle. 219,291, 11–24–70, Cl. D34—15.
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Schreckengost, Viktor, to The Murray Ohio Mfg. Co. Riding-type lawn mower frame. 218,633, 9–8–70, Cl. D40—1.
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Smith, John J., to Mueller Co. Fire hydrant. 218,426, 8–18–70, Cl. D23—12.
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Smith, Kenneth F. Gameboard. 218,763, 9–22–70, Cl. D34—5.
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Smith, Orville M., and K. S. Wiscamb; 80% to said Smith and 20% to Coast Properties Co. Molded food product. 218,137. 7–28–70, Cl. D1—16.
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Soper, La Vern G., to National Presto Industries, Inc. Recharging base for battery operated tooth brush. 218,270, 8–11–70, Cl. D4—16.
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Spear, Gladys I. Handbag. 219,632, 12–29–70, Cl. D87—3.
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Trunsperger, Anton. Display stand for carpets or the like. 218,918, 10–6–70, Cl. D80—9.
Trunsperger, Anton. Display stand for carpets or the like. 218,954, 10–13–70, Cl. D80—9.
Trupp, Garrison G. Interdental prophylactic mouthwash dispenser. 216,981, 3–24–70, Cl. D24—1.
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Vasilatos, Anastasios J. Water sled. 216,448, 1–6–70, Cl. D71—1.
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Wally, Joseph H., Jr., to Western Blue Print Co. Subject-holder-supported overhead track for camera-projector head of a photoreproduction unit or similar article. 218,575, 9-1-70, Cl. D61—1.
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Weber, Major E. Resealer for a can or the like. 218,808, 9-29-70, Cl. D9—281.
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Weeber, Marion, to American Home Products Corp. Spoon or similar article. 217,293, 4-21-70, Cl. D54—12.
Weeber, Marion, to American Home Products Corp. Spoon or similar article. 217,294, 4-21-70, Cl. D54—12.
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Wegener, Henry W., Jr. Golf putter head. 218,108, 7-21-70, Cl. D34—5.
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Weimer, John W., to Seneca Glass Co. Tumbler or similar article. 217,630, 5-19-70, Cl. D36—8.
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Zellner, Peter, to The Metropolitan Museum of Art. Display table. 219,080, 10–27–70, Cl. D80—2.

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Ziff, Irving M., to Ziffco (a limited partner of Ziffco, Inc.). Toboggan or the like. 216,530, 2–3–70, Cl. D34—15.
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Zolkower, Helen, and N. G. Wachler. Jewelry display stand. 218,865, 9–29–70, Cl. D80—9.
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Anderson, Frederic W., to Reedley Nursery, Inc. Nectarine tree. 2,976, 6–30–70, Cl. 41.
Anderson, Frederic W., to Reedley Nursery, Inc. Nectarine tree. 2,993, 10–20–70, Cl. 41.
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Boerner, Eugene S., deceased, by R. L. Boerner and Lincoln Rochester Trust Co., executors, to Jackson & Perkins Co. Rose plant. 2,979, 7–7–70, Cl. 15.
Boerner, Eugene S., deceased, by Lincoln Rochester Trust Co. and R. L. Boerner, executors, to Jackson & Perkins Co. Rose plant. 2,980, 7–7–70, Cl. 11.
Boerner, Eugene S., deceased, by Lincoln Rochester Trust Co. of New York, and R. L. Boerner, executors, to Jackson & Perkins Co. Rose plant. 2,998, 11–10–70, Cl. 14.
Boerner, Roger L.: *See*—
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Byrum, Roy L., to Joseph H. Hill Co. Rose plant. 2,978, 7–7–70, Cl. 11.
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Cobia, B. L., Inc.: *See*—
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Cole Nursery Co., The: *See*—
Ross, Henry A. 2,983.
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Dickson, Patrick, to Jackson & Perkins Co. Rose plant. 3,006, 11–24–70, Cl. 22.
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Johnson, Harold A., Jr., and Thomas. 3,001.
Ecke, Paul, Inc.: *See*—
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Ekdahl, Paul H. Geranium plant. 2,969, 4–14–70, Cl. 68.
Elliott, Frank T., Jr., to Reedley Nursery, Inc. Peach tree. 2,990, 9–22–70, Cl. 43.
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Fritz, John A. Almond tree. 3,005, 11–24–70, Cl. 30.
Garabedian, John M., to Peach & Willow Farms. Peach tree. 2,963, 1–20–70, Cl. 43.
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Whisler, Dorothy S. 2,992.
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Hegg, Thormod, to Paul Ecke, Inc. Poinsettia plant. 2,962. 1–20–70, Cl. 86.
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Goffe, Charles A., and R. L. Schneider. Enhanced film hardening by ultrasonic treatment. T878,024, 9–29–70, Cl. 96—111.

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Hagemeyer, Hugh J., Jr., D. C. Hull, and M. A. Perry, to Eastman Kodak Co. Process for manufacturing 2,2,4-trimethylpentanol. T880,005, 11–24–70, Cl. 260—638.

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Jackson, Winston J., Jr., and J. R. Caldwell. Bisphenol polyester coatings. 875,027, 6–30–70, Cl. 161—186.

Jackson, Winston J., Jr., and J. R. Caldwell. Process for insolubilizing polycarbonates and polyesters. T878,018, 9–29–70, Cl. 260—860.

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Luginbuhl, Christian B. Maneb formulations including silicone oils containing colloidal silica. T880,002, 11–24–70, Cl. 424—286.

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Montgomery, Ronald E., and H. H. Incho. (ω-Alkynyl) (diaryl)-phosphine oxide synergists for cyclopropanecarboxylate insecticides. 870,017, 1–20–70, Cl. 424—219.

Montgomery, Ronald E., and H. H. Incho. Lower alkyl (ω-alkynyl) (aryl) phosphinate synergists for cyclopropanecarboxylate insecticides. 871,002, 2–10–70, Cl. 424—219.

Montgomery, Ronald E., and H. H. Incho, to FMC Corp. Synergistic insecticidal compositions and method of use. 875,002, 6–2–70, Cl. 424—219.

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Rauner, Frederick J. Light-sensitive printout system. 876,008, 7–28–70, Cl. 96—91.

Rauner, Frederick J. Photographic element and process utilizing a dye and an aromatic diazonium salt. 876,009, 7–28–70, Cl. 96—91.

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Ulbing, Cynthia G., and M. J. W. Brizee. Supersensitized silver halide photographic emulsions. 874,009, 5–19–70, Cl. 96—104.
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Wilson, Burton D. Photographic processing utilizing stabilizing baths containing polyalkylene glycol. T879,007, 10–13–70, Cl. 96—61.
Wininger, John M., Jr., P. K. Fain, Jr., and R. B. McFall. Process for improving the blush resistance of sheets of crystallizable organic polymer. 874,002, 5–12–70, Cl. 264—175.
Woodward, Robert N., and D. E. Haseley. Printing plate processed by an etch-bleach technique. 870,005, 1–6–70, Cl. 96—33.
Wyand, Edwin B.: *See*—
Verhow, Ronald, and Wyand. 872,004.
Wyomissing Corp.: *See*—
Howard, Robert C. 875,007.
Yackel, Edward C. Photographic element and method of making etched printing plate. T879,011, 10–13–70, Cl. 96—36.3.
Yackel, Edward C., and D. P. Foster. Method of making a hydrolyzed cellulose ester printing plate. T881,005, 12–1–70, Cl. 96—33.
Young, Howard S.: *See*—
Larkins, Thomas H., Jr., and Young. 872,010.
Yudelson, Joseph S., and W. A. Bowman. Protection of silver diffusion transfer image. T880,001, 11–24–70, Cl. 95—1.
Zimmt, Werner S., to E. I. du Pont de Nemours and Co. Polymerization process using metal borohydrides as catalysts. 875,006, 6–9–70, Cl. 260—88.7.

1970
LIST OF DISCLAIMERS AND DEDICATIONS

Abbott, Ralph E., San Francisco, Calif. Disclaimer and dedication filed July 21, 1970, by the assignee, Bailey Meter Company. No. 3,480,476; v. 880; p. 338.
Adams, Edward R., and Jim L. Shepherd, Lebanon, Ind. and James V. Piacitelli, Dedham, Mass. Disclaimer and dedication filed Sept. 3, 1969, by the assignee, The Carborundum Company. No. 3,398,905; v. 870; p. 715.
Adler, Robert, Northfield, Ill. Disclaimer filed Jan. 12, 1970, by the assignee, Zenith Radio Corporation. No. 3,227,931; v. 873; p. 317.
Allen, James Forrest, South Charleston, W. Va. Dedication filed Dec. 19, 1969, by the assignee, FMC Corporation. No. 2,816,128; v. 870; p. 1040.
Anderson, Arthur W., Midland, Mich. Disclaimer filed Oct. 30, 1970, by the assignee, The Dow Chemical Company. No. 2,927,918; v. 881; p. 423.
Anderson, John L., and Hans-Otto G. Leilich, Poughkeepsie, and David H. Redfield, Wappingers Falls, N.Y. Disclaimer filed May 5, 1970, by the assignee, International Business Machines Corporation. No. 3,371,327; v. 877; p. 733.
Anderson, Robert E., Sunnyvale, Calif. Disclaimer filed Feb. 19, 1970, by the assignee, Tel-Design, Inc. No. 3,290,586; v. 874; p. 1013.
Anderson, William A., Verona, and William D. Vernam, New Kensington, Pa. Dedication filed Apr. 16, 1970, by the assignee, Aluminum Company of America. No. 3,304,209; v. 877; p. 477.
Anthon, Erik W., Kensington, Calif. Dedication filed Mar. 2, 1970, by the assignee, American Optical Corporation. No. 3,155,109; v. 876; p. 1.
Anthon, Erik W., Kensington, Calif. Dedication filed Mar. 2, 1970, by the assignee, American Optical Corporation. No. 3,178,266; v. 877; p. 477.
Anthon, Erik W., Kensington, Calif. Dedication filed Mar. 2, 1970, by the Assignee, American Optical Corporation. No. 3,193,148; v. 876; p. 1.
Anthon, Erik W., Kensington, Calif. Dedication filed Mar. 2, 1970, by the assignee, American Optical Corporation. No. 3,197,241; v. 875; p. 701.
Anthon, Erik W., Kensington, Calif. Dedication filed Mar. 2, 1970, by the assignee, American Optical Corporation. No. 3,197,241; v. 875; p. 701.
Anthon, Erik W., Kensington, Calif. Dedication filed Mar. 2, 1970, by the assignee, American Optical Corporation. No. 3,225,628; v. 876; p. 2.
Anthon, Erik W., Kensington, Calif. Dedication filed Mar. 2, 1970, by the assignee, American Optical Corporation. No. 3,323,058; v. 875; p. 701.
Aylott, David Howard, Welwyn Garden City, England. Disclaimer filed Feb. 2, 1970, by the assignee, Eylure Limited. No. 3,504,682; v. 875; p. 702.
Ballman, Albert A., Woodbridge, Pascal V. Lenzo, Warren Township, Somerset County, and Edward G. Spencer, Berkeley Heights, N.J. Disclaimer filed July 10, 1970, by the assignee Bell Telephone Laboratories, Incorporated. No. 3,492,492; v. 880; p. 337.
Barnes, James W., Drexel Hill, and Rexford W. Van De Boe, Broomall, Pa. Disclaimer filed Aug. 7, 1970, by the assignee, Barnes Corporation. No. 3,516,044; v. 881; p. 424.
Baruch, Hans, Berkeley, Calif. Dedication filed Mar. 2, 1970, by the assignee, American Optical Corporation. No. 3,193,358; v. 876; p. 1.
Baruch, Hans, Berkeley, and Dalny Travaglio, Kensington, Calif. Dedication filed Mar. 2, 1970, by the assignee, American Optical Corporation. No. 3,192,968; v. 876; p. 1.
Baruch, Hans, Berkeley, and Dalny Travaglio, Kensington, Calif. Dedication filed Mar. 2, 1970, by the assignee, American Optical Corporation. No. 3,193,359; v. 876; p. 2.
Baruch, Hans, Berkeley, Calif. Dedication filed Mar. 2, 1970, by the assignee, American Optical Corporation. No. 3,263,553; v. 876; p. 2.
Baruch, Hans, Berkeley, and Dalny Travaglio, Kensington, Calif. Dedication filed Mar. 2, 1970, by the assignee, American Optical Corporation. No. 3,282,431; v. 875; p. 701.
Baruch, Hans, Berkeley, and Erik W. Anthon, Kensington, Calif. Dedication filed Mar. 2, 1970, by the assignee, American Optical Corporation. No. 3,364,811; v. 876; p. 2.
Benko, Julius, Quebec, Quebec, Canada. Disclaimed filed Aug. 13, 1970, by the assignee, Dryden Chemicals Limited. No. 3,483,127; v. 881; p. 424.
Benziger, Theodore M., Leonard W. Kissinger and Herbert E. Ungnade, Los Alamos, N. Mex. Disclaimer filed Oct. 22, 1969, by the assignee, United States Atomic Energy Commission. No. 3,396,187; v. 870; p. 716.
Bernier, Louis E., Rockland, and James P. Giblin, Milton, Mass. Disclaimer filed Apr. 30, 1970, by the assignee, E. T. Wright & Co., Inc. No. 3,492,744; v. 881; p. 424.
Bienhoff, Milton G., and Edward J. Schneberger, Canoga Park, Calif. Disclaimer filed Sept. 17, 1970, by the inventors; the assignee, The Bunker-Ramo Corporation, concurring. No. 3,364,471; v. 879; p. 667.
Biro, Alexander J., Indiana, Pa. Disclaimer filed Dec. 18, 1969, by the assignee, Season-All Industries, Inc. No. 3,449,862; v. 872; p. 1384.
Bludworth, Joseph E., Corpus Christi, Tex. Disclaimer and dedication filed May 1, 1970, by the assignees, Garrett Tucker, Sidney Johnson and Melvin Fincke. No. 3,292,381; v. 876; p. 1.
Boonshaft, Julius C., Huntingdon Valley, Pa. Disclaimer and dedication filed Feb. 4, 1970, by the assignee, Weston Instruments, Inc. No. 3,319,534; v. 874; p. 1014.
Boonshaft, Julius C., Huntingdon Valley, Pa. Disclaimer and dedication filed Feb. 4, 1970, by the assignee, Weston Instruments, Inc. No. 3,357,676; v. 874; p. 1014.
Boonshaft, Julius C., Huntingdon Valley, and Kenneth W. Zeuner, Newton, Pa. Disclaimer and dedication filed Feb. 4, 1970, by the assignee, Weston Instruments, Inc. No. 3,381,931; v. 874; p. 1014.
Boonshaft, Julius C., Huntingdon Valley, and Kenneth W. Zeuner, Newton, Pa. Disclaimer and dedication filed Feb. 4, 1970, by the assignee, Weston Instruments, Inc. No. 3,466,003; v. 874; p. 1014.
Brown, Jack T., Monroeville, Albert W. Hoppe, Canonsburg, and Donald W. Gunther, Monroeville, Pa. Disclaimer filed Feb. 6, 1970, by the assignee, Westinghouse Electric Corporation. No. 3,199,978; v. 875; p. 2.
Brown, Laurence R., Springfield, Va. Disclaimer filed Apr. 10, 1970, by the inventor. No. 3,198,383; v. 877; p. 478.
Brown, Ralph H., Jr., Hopedale, Mass. Disclaimer and dedication filed Jan. 16, 1970, by the assignees, John D. Marshall and Horace L. Bomar, as trustees of The Carolina Patent Development Trust. No. 3,467,148; v. 873; p. 318.
Buck, Francis E., Warminster, and James R. Bellace, New Hope, Pa. Disclaimer filed Oct. 15, 1969, by the inventors. No. 3,447,627; v. 870; p. 716.
Bucklin, Robert W., Houston, Tex. Disclaimer and dedication filed Apr. 20, 1970, by the assignees, Garrett Tucker, Sidney Johnson, and Melvin Fincke. No. 3,292,380; v. 876; p. 1.
Casell, Carroll C., Berkeley, and Jerome Yaffe, El Cerrito, Calif. Dedication filed Dec. 23, 1969, by the assignee, FMC Corporation. No. 2,832,716; v. 870; p. 1940.
Catania, Salvatore C., Cornwells Heights, Pa. Disclaimer and dedication filed Feb. 4, 1970, by the assignee, Weston Instruments, Inc. No. 3,488,999; v. 875; p. 2.
Chabrier, Henri-Pierre, Lyon, France. Disclaimer filed June 5, 1970, by the assignee, SETARAM Societe d'Etudes d'Automatisation, de Regulation et d'Appareils de Mesures. No. 3,506,035; v. 876; p. 337.
Chant, Albert H., Jr., Holland, and William F. Wilson, Jr., St. David's, Pa. Disclaimer filed May 23, 1969, by the inventors; the assignee, J. B. Dove, Inc., consenting. No. 3,367,589; v. 873; p. 1.
Chisholm, Raymond S., Pittsburgh, George E. Sleighter, Natrona Heights, and Fred M. Ernsberger, Pittsburgh, Pa. Disclaimer filed Nov. 26, 1969, by the assignee, PPG Industries, Inc. No. 3,287,201; v. 871; p. 334.
Clark, Kendall, Poughkeepsie, George C. Beck, Fishkill, Eugene J. Creighton and Frank L. De Turris, Wappingers Falls, Joseph G. Drop and Jean J. L. Godat, Poughkeepsie, Arne H. Larsen, Wappingers Falls, and Thomas J. Rajac, George R. Santillo, Jr., and Walter J. Schuelke, Poughkeepsie, N.Y. Disclaimer filed Dec. 12, 1969, by the assignee, International Business Machines Corporation. No. 3,499,203; v. 877; p. 478.
Coffey, Charles D., Inglewood, Calif. Dedication filed Oct. 13, 1969, by the assignee, Controls Company of America. No. 3,122,317; v. 870; p. 715.
Coffey, Charles D., Inglewood, Calif. Dedication filed Oct. 13, 1969, by the assignee, Controls Company of America. No. 3,231,193; v. 870; p. 715.
Coneybear, J. Frank, Rockville, Md., Charles H. Chandler, Princeton, N.J., and John J. Andrisin, Jr., Parma Heights, Ohio. Disclaimer filed June 25, 1970, by the assignee, Ocean Spray Cranberries, Inc., No. 3,463,311; v. 880; p. 337.
Conover, Warren C., Waukegan, Ill. Dedication filed Apr. 6, 1970, by the assignee, Outboard Marine Corporation. No. 3,061,250; v. 877; p. 477.
Cotsworth, Albert, Oak Park, Ill. Disclaimer filed Oct. 6, 1969, by the assignee, Zenith Radio Corporation. No. 3,236,971; v. 873; p. 667.
Cressman, George W., Chagrin Falls, and Louis A. Demchock, Jr., Cleveland, Ohio. Disclaimer filed Aug. 21, 1970, by the assignee, General Electric Company. No. 3,123,993; v. 881; p. 424.
Cronkhite, Paul W., St. Charles, Mo. Disclaimer filed Mar. 16, 1970, by the assignee, Monsanto Company. No. 3,482,682; v. 877; p. 478.
Curtis, Gerald R., Duarte, Glen Robinson, Pasadena, and Richard W. Baugh, Duarte, Calif. Dedication filed June 3, 1970, by the assignee, Physical Sciences Corporation. No. 3,077,571; v. 880; p. 338.
Curtis, Gerald R., Duarte, James C. Kyle, Glendora, and Glen Robinson, Pasadena, Calif. Dedication filed June 3, 1970, by the assignee, Physical Sciences Corporation. No. 3,183,126; v. 880; p. 338.

Curtis, Gerald R., Duarte, James C. Kyle, Glendora, and Glen Robinson, Pasadena, Calif. Dedication filed June 3, 1970, by the assignee, Physical Sciences Corporation. No. 3,308,412 ; v. 880 ; p. 338.

Davidson, Per, Sandviken, Sweden. Disclaimer filed Apr. 13, 1970, by the assignee, Sandvikens Jernverks AB. Reissue No. 25,905 ; v. 877 ; p. 477.

Delp, William G., Pasadena, Calif. Disclaimer filed July 7, 1969, by the assignee, Standard Kollsman Industries, Inc. No. 3,218,589 ; v. 880 ; p. 1135.

Demaison, Raymond J., Fleetwood, Mount Vernon, N.Y. Disclaimer filed Mar. 19, 1970, by the assignee, Quigley Company, Inc. No. 3,460,933 ; v. 877 ; p. 478.

Dixon, Don P., San Antonio, Tex. Disclaimer filed Aug. 3, 1970, by the inventor. No. 3,494,413 ; v. 881 ; p. 424.

Dixon, Don P., San Antonio, Tex. Disclaimer filed Aug. 3, 1970, by the inventor. No. 3,494,540 ; v. 881 ; p. 424.

Doty, Luther L., Jr., Birmingham, Ala. Disclaimer filed Mar. 2, 1970, by the assignee, Moore-Handley Incorporated. No. 2,934,373 ; v. 873 ; p. 317.

Drake, Edwin George, La Salle, Quebec, and Marius Frechette, Ville St. Michael, Quebec, Canada. Disclaimer and dedication filed June 4, 1970, by the assignee, Wisconsin Alumni Research Foundation. No. 3,437,073 ; v. 876 ; p. 595.

Drow, Donald F., Los Angeles, Calif. Dedication filed Oct. 13, 1969, by the assignee, Controls Company of America. No. 2,785,874 ; v. 870 ; p. 715.

Drow, Donald F., Los Angeles, Calif. Dedication filed Oct. 13, 1969, by the assignee, Controls Company of America. No. 2,922,617 ; v. 870 ; p. 715.

Dunnington, Gordon Beale, Wilmington, and Reuben Thomas Fields, Brandywine Hills, Del. Disclaimer filed Apr. 18, 1970, by the assignee, E. I. du Pont de Nemours and Company. No. 3,354,023 ; v. 877 ; p. 478.

Dunworth, William Paul, Wilmington, Del. Disclaimer filed Feb. 18, 1970, by the assignee, E. I. du Pont de Nemours and Company. No. 3,426,010 ; v. 875 ; p. 2.

Earl, John A., Alhambra, Calif. Dedication filed June 3, 1970, by the assignee, Physical Sciences Corporation. No. 3,446,637 ; v. 880 ; p. 338.

Edwards, Miles Lowell, Santa Ana, Calif. Disclaimer filed Jan. 2, 1970, by the assignee, American Hospital Supply Corporation. No. 3,325,827 ; v. 873 ; p. 317.

Edwards, Richard A., Walnut Creek, Calif. Disclaimer filed Dec. 15, 1969, by the assignee, Roto-Stamp Corporation. No. 3,255,941 ; v. 872 ; p. 1384.

Elazar, Shmuel, El Monte, Calif. Disclaimer filed Mar. 23, 1970, by the assignee, Bell & Howell Company. No. 3,400,284 ; v. 876 ; p. 595.

Elliott, Carmon M., Rochester, and Richard A. Cowles, Victor, N.Y. Disclaimer filed Apr. 6, 1970, by the assignee, Eastman Kodak Company. No. 3,487,919 ; v. 880 ; p. 337.

Feichtmeir, Thomas V., San Francisco, and Kenneth D. Jenkins, Berkeley, Calif. Dedication filed Mar. 2, 1970, by the assignee, American Optical Corporation. No. 3,127,062 ; v. 876 ; p. 1.

Fisher, Hiram H., Jr., and Julian D. Keithahn, Houston, Tex. Disclaimer filed Feb. 27, 1970, by the assignee, Baker Oil Tools, Inc. No. 3,101,783 ; v. 875 ; p. 2.

Frommelt, Cyril P., and Sylvan J. Frommelt, Dubuque, Iowa. Disclaimer filed May 20, 1970, by the assignee, Dubuque Awning & Tent Company. No. 3,403,489 ; v. 877 ; p. 478.

Galantay, Eugene E., Morristown, N.J. Disclaimer filed Dec. 18, 1969, by the assignee, Sandoz-Wander, Inc. No. 3,502,686 ; v. 878 ; p. 231.

Ganz, Alexander J., Wilmington, Del. Dedication filed July 31, 1970, by the assignee, Hercules Incorporated. No. 3,479,190 ; v. 880 ; p. 739.

Garman, John A., Baltimore, Md., and Donald K. George, State College, Miss. Dedication filed Dec. 19, 1969, by the assignee, FMC Corporation. No. 2,804,381 ; v. 870 ; p. 1040.

Geiger, Eric L., Santa Fe, N. Mex. Disclaimer filed Apr. 6, 1970, by the assignee, Eberline Instrument Corporation. No. 3,283,153 ; v. 880 ; p. 337.

Genke, Richard M., Colts Neck, N.J., and Philip A. Harding, Aurora, Ill. Disclaimer filed Feb. 2, 1970, by the assignee, Bell Telephone Laboratories, Incorporated. No. 3,484,763 ; v. 875 ; p. 2.

Gerlach, Erwin, Stockholm, Sweden. Disclaimer filed Apr. 3, 1970, by the assignee, Eastman Kodak Company. No. 3,402,007 ; v. 875 ; p. 328.

Gibson, Clyde E., and Don M. Peterson, Crossville, Tenn. Disclaimer filed Nov. 4, 1969, by the assignee, General Processing Corporation. No. 3,446,520 ; v. 871 ; p. 334.

Gilberton, Emile, Paris, France. Disclaimer filed May 8, 1970, by the assignee, Etablissements Genoud & Cie. No. 3,122,907 ; v. 877 ; p. 478.

Gould, Jack R., Monsey, and Edward M. Butler, Yonkers, N.Y. Disclaimer filed May 11, 1970, by the assignee, Stauffer Chemical Company. No. 3,310,444 ; v. 875 ; p. 373.

Grangaard, Orrin H., Jr., St. Paul, Minn. Disclaimer filed Mar. 17, 1970, by the assignee, Honeywell Inc. No. 3,451,006 ; v. 875 ; p. 702.

Grantham, Le Roy F., Calabasas, and Christian M. Larsen, Reseda, Calif. Disclaimer filed Mar. 19, 1970, by the assignee, North American Rockwell Corporation. No. 3,516,796 ; v. 878 ; p. 232.

Gray, James J., St. Joseph, Mo. Disclaimer filed Apr. 27, 1970, by the assignee, Gray Manufacturing Company, Inc. No. 3,302,927 ; v. 875 ; p. 328.

Gutt, Tadius J., Independence, Ohio. Disclaimer and dedication filed July 27, 1970, by the assignee, Cleveland Builders Supply Company. No. 3,487,597 ; v. 880 ; p. 1.

Haenky, Norman H., Tulsa, Okla. Disclaimer filed May 12, 1970, by the assignee, FWI, Inc. No. 3,484,078 ; v. 881 ; p. 424.

Hall, Herbert J., Princeton, Harold E. Van Hoesen, Somerville, and Harry J. White, Basking Ridge, N.J. Disclaimer filed Dec. 8, 1969, by the assignee, Research-Cottrell, Inc. No. 3,147,094 ; v. 872 ; p. 1384.

Hall, Richard Harrison, Rochester, N.Y. Disclaimer filed Aug. 20, 1970, by the assignee, Xerox Corporation. No. 3,084,061 ; v. 881 ; p. 424.

Harmon, James V., New Brighton, Minn. Disclaimer filed May 15, 1969, by the inventor. No. 3,473,486 ; v. 870 ; p. 336.

Hartman, Harry J., Baltimore, Md. Disclaimer filed Sept. 23, 1969, by the assignee, Allied Research Products, Inc. No. 2,851,386 ; v. 870 ; p. 716.

Hartsough, Russell E., Walkerton, Ind. Disclaimer filed Dec. 8, 1969, by the inventor. No. 3,285,153 ; v. 872 ; p. 1384.

Hecker, Arthur C., Forest Hills, N.Y., and Norman L. Perry, Wayne, N.J. Disclaimer filed Nov. 12, 1969, by the assignee, Argus Chemical Corporation. No. 3,398,115 ; v. 872 ; p. 1384.

Hecker, Arthur C., Forest Hills, N.Y., and Norman L. Perry, Wayne, N.J. Disclaimer filed Nov. 12, 1969, by the assignee, Argus Chemical Corporation. No. 3,496,135 ; v. 871 ; p. 334.

Hill, Donald E., Fort Wayne, Ind. Disclaimer filed Jan. 16, 1970, by the inventor. No. 3,324,536 ; v. 873 ; p. 317.

Hirsch, James A., Indianapolis, Ind. Disclaimer filed Nov. 21, 1969, by the assignee, P. R. Mallory & Co. Inc. No. 3,350,606 ; v. 870 ; p. 1039.

Honeyball, Walter John, Chelmsford, England. Disclaimer filed July 24, 1970, by the assignee, English Electric Valve Company Limited. No. 3,343,106 ; v. 880 ; p. 337.

Houlihan, William J., Mountain Lakes, N.J. Disclaimer filed Aug. 28, 1970, by the assignee, Sandoz-Wander, Inc. ; the inventor consenting. No. 3,334,099 ; v. 879 ; p. 987.

Houlihan, William J., Mountain Lakes, N.J. Disclaimer filed Nov. 13, 1970, by the assignee, Sandoz-Wander, Inc. ; the inventor consenting. No. 3,454,585 ; v. 881 ; p. 847.

Housworth, Gordon C., Houston, Tex. Disclaimer filed Nov. 12, 1969, by the assignee, FMC Corporation. No. 3,341,170 ; v. 871 ; p. 334.

Hujsak, Karol L., Tulsa, Howard Grekel, Claremore, and Richard Mungen, Tulsa, Okla. Disclaimer filed July 17, 1970, by the assignee, Pan American Petroleum Corporation. Reissue No. 26,773 ; v. 881 ; p. 1.

Hunt, Charles R., Tilton, N.H. Disclaimer filed Aug. 17, 1970, by the assignee, Hunt Industries, Inc. No. 3,085,535 ; v. 880 ; p. 337.

Johnson, David A., Fayetteville, and Elwin J. Richardson, Jr., Kirkville, N.Y. Disclaimer filed Apr. 13, 1970, by the assignee, Beecham Group Limited. No. 3,278,524 ; v. 877 ; p. 478.

Kearfott, Joseph B., Lincoln Park, and Charles E. Baer, Jr., Birmingham, Mich. Disclaimer filed Aug. 28, 1970, by the assignee, Nalco Chemical Company. No. 3,509,936 ; v. 881 ; p. 424.

Kiekhaefer, Elmer Carl, Winter Haven, Fla. Disclaimer filed Oct. 8, 1970, by the assignee, Brunswick Corporation. No. 3,487,804 ; v. 880 ; p. 740.

Kim, George A., Chicago, Ill. Disclaimer filed Apr. 9, 1970, by the assignee, Teletype Corporation. No. 3,482,784 ; v. 881 ; p. 424.

Kindig, Guilford E., and Harold L. Malone, Rochester, N.Y. Disclaimer filed June 4, 1970, by the assignee, Eastman Kodak Company. No. 3,388,006 ; v. 876 ; p. 337.

Knospe, Robert H., Wilmington, Del. Disclaimer filed Oct. 8, 1969, by the inventor ; the assignee, E. I. du Pont de Nemours and Company, consenting. No. 3,481,133 ; v. 872 ; p. 1384.

Kreuger, Grant E., and Harold F. Mohr, Green Bay, Wis., and Otto Charles Huber, Jr., Oak Park, Ill. Dedication filed Dec. 8, 1969, by the assignee, National Dairy Products Corporation. No. 3,355,805 ; v. 872 ; p. 1383.

Kucirka, John F., Northampton, Pa. Disclaimer filed June 12, 1969, by the assignee, Air Products and Chemicals, Inc. No. 3,472,787 ; v. 873 ; p. 1017.

Kukin, Ira, West Orange, N.J. Disclaimer and dedication filed Apr. 29, 1970, by the assignee, Apollo Chemical Corp. No. 3,348,932 ; v. 875 ; p. 327.

Kyle, James C., Glendora, Calif. Dedication filed June 3, 1970, by the assignee, Physical Sciences Corporation. No. 3,212,321 ; v. 880 ; p. 338.

Kyle, James C., Glendora, Calif. Dedication filed June 3, 1970, by the assignee, Physical Sciences Corporation. No. 3,274,937 ; v. 880 ; p. 338.

Kyle, James C., Glendora, and Gerald D. Curtis, Duarte, Calif. Dedication filed June 3, 1970, by the assignee, Physical Sciences Corporation. No. 3,056,934 ; v. 880 ; p. 338.

La Branche, Harvey W., Palos Verdes Peninsula, and Howard F. Newman, Los Angeles, Calif. Disclaimer filed July 17, 1970, by the assignee, Mattel, Inc. No. 3,510,981 ; v. 878 ; p. 232.

Lamb, Frank G. Lake Oswego, Oreg. Disclaimer filed Feb. 20, 1970, by the assignee, Pet Incorporated. Reissue No. 25,735 ; v. 875 ; p. 2.

Lawrence, Augustine Hicks, Jr., and John Herbert Dowling, Wilmington, Del. Disclaimer filed Apr. 14, 1970, by the assignee, E. I. du Pont de Nemours and Company. No. 3,238,011 ; v. 877 ; p. 478.

Leeder, Harry A., Jr., Skaneateles, N.Y. Disclaimer filed June 18, 1969, by the assignee, R. E. Dietz Company. No. 3,113,242 ; v. 871 ; p. 1.

Lockhart, Stanford C., Akron, Ohio. Disclaimer filed July 6, 1970, by the assignee, The Goodyear Tire & Rubber Company. No. 3,233,946 ; v. 879 ; p. 1.

Loeb, Alfred M., Melrose Park, Pa. Disclaimer and dedication filed Feb. 4, 1970, by the assignee, Weston Instruments, Inc. No. 3,473,371 ; v. 875 ; p. 2.

Loepfe, Erich, Zurich, Switzerland. Disclaimer filed Feb. 26, 1970, by the inventor. No. 3,053,189 ; v. 873 ; p. 317.

Lowe, Leonard F., East Stroudsburg, Pa. Disclaimer filed May 22, 1970, by the assignee, The Patterson-Kelley Co., Inc. No. 3,276,517 ; v. 878 ; p. 1.

Ludwig, Carl, Cleveland, Ohio. Disclaimer filed Oct. 16, 1970, by the assignee, McDowell-Wellman Engineering Company. No. 3,339,707 ; v. 881 ; p. 424.

Lux, John H., Charlestown, Md. Disclaimer filed Feb. 9, 1970, by the assignee, Haveg Industries, Inc. No. 3,299,192 ; v. 877 ; p. 478.

McAninch, Herbert A., Auburn, Ind. Disclaimer filed Aug. 5, 1970, by the assignee, Borg-Warner Corporation. No. 3,338,509 ; v. 881 ; p. 424.

McCullough, John E., Carlisle, Mass. Dedication filed Oct. 20, 1969, by the assignee, American Petroleum Institute. No. 3,275,059 ; v. 870 ; p. 715.

McDowell, Maurice J., Media, and Ervin R. Werner, Jr., Levittown, Pa. Disclaimer filed Mar. 24, 1970, by the assignee, E. I. du Pont de Nemours and Company. No. 3,261,797 ; v. 876 ; p. 1.

McDowell, Maurice J., Media, Pa., and Trevor B. Hill, Williamsburg, Va. Disclaimer filed Mar. 24, 1970, by the assignee, E. I. du Pont de Nemours and Company. No. 3,309,331 ; v. 877 ; p. 478.

Marchant, Paul A., Kansas City, Mo., and Robert A. Coerver, Jr., New York, N.Y. Disclaimer filed Apr. 13, 1970, by the assignees, Imco Container Company and Precision Valve Corporation. No. 3,388,838 ; v. 875 ; p. 328.

Mater, Bernardus E., Woodland Hills, Calif. Dedication filed Feb. 27, 1970, by the assignee, Baker Oil Tools, Inc. No. 3,080,922 ; v. 875 ; p. 1.

Matson, Fred, Hollywood, Calif. Dedication filed Dec. 29, 1969, by the inventor. No. 2,817,190 ; v. 872 ; p. 1383.

Mayer, Joseph C., Milwaukee, Wis. Disclaimer filed Sept. 17, 1970, by the assignee, Allen-Bradley Company. No. 3,508,180 ; v. 880 ; p. 740.

Massio, Anthony J., Chicago, Ill. Disclaimer filed Nov. 5, 1969. by the assignee, A. B. Dick Company. No. 3,343,834 ; v. 870 ; p. 1039.

Miller, Roland E., Orangeville, George Howard Kraft, Wilmette, Carmen G. Tumino, Elk Grove Village, and Clyde D. Wayne, Wilmette, Ill. Disclaimer filed July 24, 1970, by the assignee, Kraftco Corporation. No. 3,238,691 ; v. 880 ; p. 337.

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